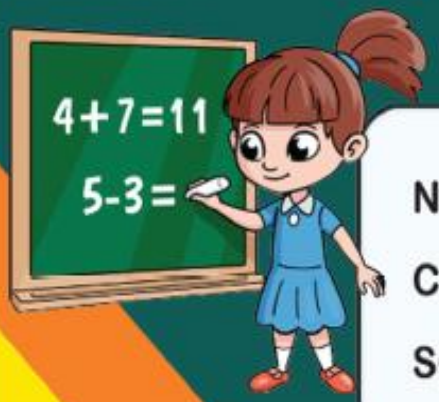
BASIC MATHEMATICAL ABILITIES ACQUISITION PROGRAMME (B-MAAP)

Part of Learning Improvement Programme (LIP)

STUDENT'S WORKBOOK



NAME .....

CLASS .....

SCHOOL .....

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DNR EDUCATIONAL TRUST

HYDERABAD.

BASIC MATHEMATICAL ABILITIES ACQUISITION PROGRAMME (B-MAAP)

*A Self-Learning **Workbook** for Students of Classes VI to IX to Strengthen Foundational Mathematics Skills. Developed under **the Learning Improvement Programme (LIP)** in Telangana State.*

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Publisher:

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Preface

The ***Basic Mathematical Abilities Acquisition Programme*** workbook is designed to address the essential learning needs of students from Classes VI to IX. During classroom observations and student assessments, it became evident that many learners face challenges in applying fundamental mathematical skills, which directly affects their performance in higher-level mathematics.

This workbook provides systematic, graded, and activity-based exercises on:

- The Four Fundamental Operations (Addition, Subtraction, Multiplication, Division)
- Operations on Integers, Fractions, and Decimals
- BODMAS Rule and Order of Operations
- Fundamental Geometry Skills

Each section offers ample practice through self-learning worksheets, real-life word problems, and simple yet effective problem-solving tasks. The book is designed for independent learning, allowing students to reinforce classroom teaching and develop accuracy, speed, and confidence.

We extend our sincere gratitude to the **DNR Educational Trust**, under the leadership of **Sri Dodda Prathap Reddy**, for publishing and distributing this ***workbook free of cost to government school students*** in rural districts i.e; Mulugu, to promote quality mathematics education. We also acknowledge the Department of School Education, Telangana, for their encouragement and support.

We welcome your feedback for the further improvement of this workbook.

- Authors

Message from the Chairman, DNR Educational Trust – Hyderabad

It has always been my belief that education is the strongest tool to transform individual lives and the future of our communities. Mathematics, being the language of logic and reasoning, plays a vital role in shaping a child's thinking and problem-solving abilities.

The Basic Mathematical Abilities Acquisition Programme workbook is our humble effort to support students, especially in rural government schools, in mastering essential mathematical skills. By strengthening their fundamentals in operations, number systems, algebra, and geometry, we aim to give them the confidence to excel in higher learning and real-life problem-solving.

Through this initiative, the DNR Educational Trust reaffirms its commitment to improving the quality of education in rural areas, particularly in districts like Mulugu. Distributing these workbooks free of cost is our way of ensuring that no child is left behind due to lack of resources.

We firmly believe that true progress in education comes not only from access to learning materials but also from instilling in children a sense of curiosity, discipline, and joy in learning. This workbook is designed with activities and exercises that encourage independent thinking, creativity, and collaboration among students—values that will serve them for life.

It is also our vision that this programme will inspire teachers to adopt innovative classroom practices and make mathematics an engaging subject rather than a source of fear. By creating such a supportive ecosystem, we aspire to nurture a generation of learners who are confident, resilient, and ready to contribute positively to society.

I sincerely thank the dedicated State Resource Persons who developed this content, the Department of School Education for their encouragement, and the SCERT Telangana for their guidance. It is my hope that this workbook will ignite curiosity, nurture talent, and empower our students to dream big.

Dodda Prathap Reddy.
DNR Educational Trust- Hyderabad

ADDITIONS - 1

730 + 632 =	652 + 401 =	410 + 253 =
304 + 340 =	560 + 326 =	437 + 340 =
536 + 302 =	520 + 433 =	470 + 528 =
500 + 439 =	678 + 300 =	879 + 100 =

ADDITIONS - 2

236 + 424 =	325 + 425 =	437 + 253 =
628 + 243 =	457 + 325 =	349 + 343 =
548 + 345 =	559 + 433 =	366 + 528 =
426 + 436 =	639 + 243 =	456 + 345 =

ADDITIONS - 3

708 + 32 =	652 + 49 =	408 + 53 =
304 + 49 =	508 + 37 =	437 + 39 =
536 + 27 =	529 + 33 =	47 + 528 =
58 + 439 =	678 + 38 =	79 + 809 =

ADDITIONS - 4

4236 + 484 =	4325 + 485 =	4378 + 253 =
5628 + 293 =	4576 + 325 =	3498 + 343 =
5048 + 365 =	5596 + 434 =	3666 + 568 =
4267 + 436 =	6639 + 283 =	4568 + 345 =

ADDITIONS - 5

3466	4776	4467
+ 3467	+ 4458	+ 4654
5334	5628	6437
+ 3476	+ 3862	+ 1648
5638	5259	4718
+ 3629	+ 2643	+ 2528
5607	6056	5038
+ 2436	+ 3470	+ 3463

ADDITIONS - 6

406	367	447
435	445	258
+ 567	+ 576	+ 460
376	506	437
345	346	346
+ 680	+ 670	+ 564
368	468	528
409	470	740
+ 370	+ 548	+ 536
436	347	345
430	468	446
+ 538	+ 340	+ 360

ADDITIONS - 7

3466	4776	4467
460	445	654
+ 468	+ 446	+ 655
5334	5628	4370
347	386	341
+ 340	+ 408	+ 742
7362	8433	7528
763	434	529
+ 64	+ 43	+ 30
8432	9347	9345
433	348	346
+ 54	+ 30	+ 40

ADDITIONS - 8

7	6	4
63	48	25
+ 637	+ 402	+ 456
34	56	47
340	326	340
+ 3468	+ 5327	+ 6379
302	6433	528
45	43	9
+ 4568	+ 435	+ 53
439	5	42
8440	7846	7429
+ 41	+ 39	+ 102

ADDITIONS - 9

1. 8 + 62 + 14 =
2. 8 + 9 + 7611 + 651 =
3. 7 + 0 + 721 + 615 =
4. 3 + 986 =
5. 85 + 876 + 9 =
6. 15 + 81 + 0 =
7. 1907 + 8 + 118 =
8. 283 + 888 =
9. 45 + 1000 + 74 + 4159 =
10. 3 + 40 =
11. 47 + 599 + 317 + 758 =
12. 3343 + 6 + 20 + 90 =

ADDITIONS - 10

1. 81 + 8 + 53 =
2. 349 + 5 =
3. 3065 + 33 + 9 + 59 =
4. 520 + 4 + 233 =
5. 8929 + 92 + 9383 =
6. 59 + 1187 =
7. 546 + 41 + 706 =
8. 60 + 890 =
9. 6 + 153 =
10. 3 + 7686 + 58 + 27 =
11. 1 + 9391 + 5613 + 5212 =
12. 1377 + 36 =

SUBTRACTIONS - 1

453 - 322 =	446 - 321 =	465 - 253 =
456 - 343 =	562 - 321 =	437 - 314 =
576 - 362 =	525 - 403 =	475 - 222 =
556 - 432 =	698 - 347 =	587 - 345 =

SUBTRACTIONS - 2

7350 - 6240 =	6520 - 4010 =	5410 - 3210 =
4444 - 3210 =	5607 - 3200 =	4374 - 3402 =
5364 - 3024 =	5246 - 4046 =	4707 - 5207 =
6572 - 4070 =	6784 - 3000 =	8794 - 6000 =

SUBTRACTIONS - 3

450 - 322 =	440 - 321 =	460 - 253 =
450 - 343 =	560 - 321 =	430 - 314 =
570 - 362 =	520 - 403 =	470 - 222 =
550 - 432 =	690 - 347 =	580 - 345 =

SUBTRACTIONS - 4

403 - 322 =	405 - 327 =	406 - 257 =
401 - 343 =	504 - 328 =	402 - 314 =
400 - 362 =	500 - 403 =	600 - 222 =
700 - 432 =	800 - 347 =	900 - 345 =

SUBTRACTIONS - 5

403	704	402
- 342	- 525	- 253
503	504	505
- 347	- 436	- 358
601	602	607
- 362	- 433	- 528
705	706	608
- 457	- 547	- 349

SUBTRACTIONS - 6

500	600	700
- 432	- 441	- 253
800	900	400
- 347	- 326	- 341
400	500	600
- 362	- 413	- 528
700	800	900
- 432	- 347	- 345

SUSTRACTIONS - 7

7330	6520	5410
- 4563	- 4643	- 3464
4400	5600	4300
- 3454	- 3245	- 3443
5000	6000	7000
- 3344	- 4046	- 5207
6542	6325	8432
- 4567	- 3457	- 6546

SUBTRACTIONS - 8

4506	4536	4564
- 67	- 57	- 57
4507	5674	5462
- 65	- 85	- 74
5706	5205	4705
- 38	- 87	- 56
5504	6904	5803
- 65	- 76	- 76

SUBTRACTIONS - 9

4030	4054	4065
- 322	- 327	- 257
4011	5043	4026
- 343	- 328	- 314
4000	5000	6000
- 362	- 403	- 222
7000	8000	9000
- 432	- 347	- 345

SUBTRACTIONS - 9

4030	4054	4065
- 322	- 327	- 257
4011	5043	4026
- 343	- 328	- 314
4000	5000	6000
- 362	- 403	- 222
7000	8000	9000
- 432	- 347	- 345

Subtraction - 10

1. 85 – 7 = _____
2. 90 – 6 = _____
3. 43 – 5 = _____
4. 87 – 8 = _____
5. 96 – 6 = _____
6. 58 – 9 = _____
7. 78 – 9 = _____
8. 70 – 7 = _____
9. 17 – 8 = _____
10. 36 – 8 = _____

Subtraction - 11

1. 829 – 150 = _____
2. 782 – 502 = _____
3. 839 – 105 = _____
4. 466 – 175 = _____
5. 430 – 185 = _____
6. 642 – 260 = _____
7. 731 – 586 = _____
8. 640 – 404 = _____
9. 957 – 680 = _____
10. 353 – 295 = _____

Subtraction - 12

1. 9426 – 67 = _____
2. 3886 – 17 = _____
3. 9354 – 59 = _____
4. 6270 – 85 = _____
5. 5470 – 84 = _____
6. 7122 – 536 = _____
7. 6620 – 564 = _____
8. 4361 – 203 = _____
9. 8545 – 409 = _____
10. 2137 – 387 = _____

MULTIPLICATIONS - 1

23 x1	34 x1	46 x1
24 x2	32 x2	41 x2
13 x3	32 x3	23 x3
12 x4	22 x4	21 x4

MULTIPLICATIONS - 2

53 X2	64 X2	73 X2
42 X3	53 X3	62 X3
72 X3	51 X4	62 X4
71 X4	61 X5	81 X5

MULTIPLICATIONS - 3

7340 X2	6320 X3	5410 X2
4444 X2	5032 X3	4304 X2
5304 X2	5230 X3	4201 X4
6020 X4	6003 X3	8000 X6

MULTIPLICATIONS - 4

53 X5	64 X6	73 X7
42 X8	53 X9	67 X3
78 X4	56 X5	68 X6
78 X5	67 X6	86 X7

MULTIPLICATIONS - 5

463 X2	753 X3	452 X4
462 X3	452 X4	413 X3
632 X4	531 X5	740 x6
432 X4	441 X6	421 X7

MULTIPLICATIONS - 6

7350 x2	6520 x3	5410 x4
4242 x4	5607 x6	4242 x4
5064 x3	5036 x6	4707 x7
6572 X2	6784 X3	7523 X4

MULTIPLICATIONS - 7

523 x12	347 x13	465 x14
624 x23	657 x24	741 x34
713 x36	732 x37	823 x43
758 x45	762 x54	854 x64

MULTIPLICATIONS - 8

536 X42	648 X53	736 X56
678 X35	538 X63	629 X64
872 X73	851 X84	862 X75
718 X46	961 X65	816 X57

MULTIPLICATIONS - 9

6304 X26 =	7305 X36 =	5206 X45 =
5307 X28 =	6408 X56 =	4407 X47 =
5037 X56 =	6045 X38 =	4710 X56 =
5460 X32 =	6702 X47 =	5407 X45 =

MULTIPLICATIONS - 10

7350 X40 =	6520 X45 =	5410 X36 =
4444 X53 =	5607 X32 =	4374 X34 =
5364 X64 =	5246 X46 =	4707 X57 =
6572 X47 =	6784 X64 =	8794 X68 =

Multiplication - 11

1) 90 x 3 =
2) 74 x 4 =
3) 69 x 5 =
4) 60 x 8 =
5) 23 x 2 =
6) 20 x 8 =
7) 91 x 1 =
8) 53 x 7 =
9) 34 x 2 =
10) 17 x 3 =

Multiplication - 12

1) 41 x 82 =
2) 35 x 71 =
3) 39 x 48 =
4) 55 x 88 =
5) 24 x 50 =
6) 66 x 84 =
7) 82 x 47 =
8) 87 x 99 =
9) 19 x 29 =
10) 25 x 91 =

Multiplication - 13

1) 889 x 26 =
2) 478 x 53 =
3) 237 x 15 =
4) 929 x 98 =
5) 879 x 37 =
6) 135 x 14 =
7) 521 x 17 =
8) 976 x 68 =
9) 746 x 45 =
10) 789 x 39 =

Multiplication - 14

1) 9737 x 75 =
2) 1506 x 30 =
3) 9960 x 71 =
4) 7377 x 94 =
5) 1971 x 42 =
6) 1207 x 451 =
7) 2445 x 788 =
8) 1474 x 908 =
9) 4632 x 953 =
10) 5408x964 =

DIVISIONS - 1

3) 6 (	3) 7 (	3) 8 (
3) 9 (	4) 4 (	4) 5 (
4) 6 (	4) 7 (	4) 8 (
4) 9 (	5) 5 (	5) 6 (

DIVISIONS - 2

5) 7 (	5) 8 (	5) 9 (
6) 6 (	6) 7 (	6) 8 (
6) 9 (	7) 7 (	7) 8 (
7) 9 (	8) 8 (	8) 9 (

DIVISIONS - 3

9) 9 (	9) 10 (	9) 11 (
9) 12 (	9) 13 (	9) 14 (
9) 15 (	10) 10 (	10) 11 (
10) 12 (	10) 13 (	10) 14 (

DIVISIONS - 4

11) 11 (	11) 12 (	11) 13 (
11) 14 (	11) 15 (	12) 12 (
12) 13 (	12) 14 (	12) 15 (
13) 13 (	13) 14 (	13) 15 (

DIVISIONS - 5

3) 36 (	3) 47 (	3) 49 (
3) 39 (	4) 48 (	4) 56 (
4) 65 (	4) 67 (	4) 68 (
4) 69 (	5) 75 (	5) 76 (

DIVISIONS - 6

5) 57 (	5) 58 (	5) 59 (
6) 67 (	6) 68 (	6) 75 (
6) 78 (	7) 79 (	7) 84 (
7) 89 (	8) 89 (	8) 96 (

DIVISIONS - 7

9) 99 (	9) 108 (	9) 117 (
9) 127 (	9) 133 (	9) 142 (
9) 136 (	9) 127 (	9) 125 (
10) 135 (	9) 146 (	10) 148 (

DIVISIONS - 8

10) 115 (	10) 124 (	10) 135 (
10) 146 (	10) 157 (	10) 158 (
10) 160 (	10) 170 (	10) 180 (
10) 190 (	10) 210 (	10) 220 (

DIVISIONS - 9

3) 236 (	3) 247 (	3) 249 (
3) 239 (	4) 148 (	4) 156 (
4) 245 (	4) 256 (	4) 345 (
4) 387 (	5) 752 (	5) 765 (

DIVISIONS - 10

5) 674 (	5) 584 (	5) 596 (
6) 673 (	6) 685 (	6) 753 (
6) 786 (	7) 792 (	7) 84 (
7) 894 (	8) 896 (	8) 965 (

DIVISIONS - 11

9) 1045 (	9) 1089 (	9) 1176 (
9) 127 (	9) 1334 (	9) 1425 (
9) 136 (	9) 127 (	9) 125 (
10) 135 (	9) 146 (	10) 148 (

DIVISIONS - 12

10) 1155 (	10) 1244 (	10) 1350 (
10) 1418 (	10) 1575 (	10) 1584 (
10) 1670 (	10) 1780 (	10) 1860 (
10) 1970 (	10) 2150 (	10) 2240 (

DIVISIONS - 13

5) 654 (	5) 5850 (	5) 5954 (
6) 662 (	6) 6843 (	6) 7504 (
6) 7865 (	7) 776 (	7) 845 (
7) 8964 (	8) 886 (	8) 965 (

DIVISIONS - 14

5) 1045 (	6) 6089 (	7) 7176 (
9) 9127 (	8) 8334 (	8) 8425 (
6) 1236 (	9) 927 (	7) 725 (
8) 835 (	9) 946 (	6) 648 (

DIVISIONS - 15

5) 4040 (	5) 5050 (	6) 3030 (
7) 2121 (	8 2432 (	8) 4008 (
10) 16070 (	10) 17080 (	10) 18606 (
11) 4444 (	12) 6060 (	13) 26026 (

Division - 16

1. 245 ÷ 7 =
2. 36 ÷ 3 =
3. 36 ÷ 3 =
4. 90 ÷ 3 =
5. 102 ÷ 6 =
6. 312 ÷ 12 =
7. 348 ÷ 12 =
8. 248 ÷ 8 =
9. 130 ÷ 5 =
10. 396 ÷ 9 =
11. 120 ÷ 3 =
12. 38 ÷ 2 =
13. 259 ÷ 7 =
14. 141 ÷ 3 =
15. 564 ÷ 12 =

Division - 17

1. 108 ÷ 9 =
2. 132 ÷ 12 =
3. 38 ÷ 2 =
4. 52 ÷ 2 =
5. 124 ÷ 4 =
6. 504 ÷ 12 =
7. 220 ÷ 11 =
8. 328 ÷ 8 =
9. 175 ÷ 5 =
10. 22 ÷ 2 =
11. 312 ÷ 8 =
12. 444 ÷ 12 =
13. 224 ÷ 8 =
14. 153 ÷ 9 =
15. 220 ÷ 11 =

VERBAL PROBLEMS BASED ON ADDITION

1. Kiran has 6 bags. He buys 12 more bags. How many bags does he have in all?
2. Varun has 5 cups. He buys 8 more cups. How many cups does he have in all?
3. Ravi has 9 bags. Ajay has 6 bags. How many bags do they have altogether?
4. Deepak has 4 blocks. He buys 11 more blocks. How many blocks does he have in all?
5. Mohan has 8 pens. Raj has 7 pens. How many pens do they have altogether?
6. Suresh has 5 pens. He finds 9 more pens. How many pens does he have in all?
7. Karthik has 6 pencils. He buys 10 more pencils. How many pencils does he have in all?
8. There are 7 boys and 12 girls in a library. How many kids are there altogether?
9. Praveen has 3 books. His sister gave 8 more. How many books in all?
10. Lalitha has 5 books. She buys 6 more books. How many books does she have in all?
11. Meena has 8 pencils. She finds 5 more pencils. How many pencils does she have in all?
12. There are 6 boys and 5 girls in a park. How many kids are there altogether?
13. Ashok has 7 books. He finds 12 more books. How many books does he have in all?
14. Sandeep has 4 pens. He buys 9 more pens. How many pens does he have in all?
15. Chandu has 11 cups. Vijay has 8 cups. How many cups do they have altogether?
16. Balaji has 6 books. He buys 7 more books. How many books does he have in all?
17. Teja has 9 pencils. He finds 13 more pencils. How many pencils does he have in all?
18. Harish has 8 bags. Arun has 9 bags. How many bags do they have altogether?
19. Divya has 7 bags. Lakshmi has 6 bags. How many bags do they have altogether?
20. Rohit has 5 pens. He finds 14 more pens. How many pens does he have in all?

VERBAL PROBLEMS BASED ON SUBTRACTION

1. Kiran bought 9 bananas. He ate 6 bananas. How many does Kiran have now?
2. Arun has 7 bags. He buys 5 more bags. How many bags does he have in all?
3. Manoj bought 14 candies. He ate 9 candies. How many does he have now?
4. Rakesh has 13 pencils. His brother takes away 5 of his pencils. How many pencils does Rakesh have left?
5. Balu has 8 bags. Prakash has 6 bags. How many bags do they have altogether?
6. Sandeep has 12 pencils. He finds 10 more pencils. How many pencils does he have in all?
7. Venu has 15 pens. His brother takes away 3 of his pens. How many pens does Venu have left?
8. Mohan has 10 pens. Mohan gives his sister 4 pens. How many pens does Mohan have?
9. Radha has 6 pencils. Keerthi has 9 pencils. How many pencils do they have altogether?
10. Leela has 8 bananas. Leela ate 6 of them. How many bananas does Leela have left?
11. Anil has 9 books. He finds 14 more books. How many books does he have in all?
12. There are 8 boys and 6 girls in a library. How many kids are there altogether?
13. Surya has 11 blocks. He buys 7 more blocks. How many blocks does he have in all?
14. Ravi has 6 cups. He buys 9 more cups. How many cups does he have in all?
15. Hari bought 7 candies. He ate 4 candies. How many does Hari have now?
16. Rohit has 5 pencils. Rohit gives his sister 3 pencils. How many pencils does Rohit have left?
17. Ajay has 8 pens. He buys 12 more pens. How many pens does he have in all?
18. Chintu has 5 pencils less than Tarun. Tarun has 13 pencils. How many does Chintu have?
19. There are 7 boys and 11 girls in a park. How many kids are there altogether?
20. There are 9 boys and 8 girls in a room. How many kids are there altogether?

VERBAL PROBLEMS BASED ON MULTIPLICATION

1. Vikram buys 5 LED TVs. The cost of each TV is Rs. 325. What is the cost of 5 LED TVs?
2. The cost of each notebook is Rs. 4. What is the cost of 9 notebooks?
3. A basket contains 6 apples. How many apples are there in 7 baskets?
4. Anita buys 8 shirts that cost Rs. 42 per shirt. How much does she spend for shirts?
5. Deepa maintains her own library at home. She equally distributes her books on 9 shelves. If there are 24 books on a shelf, how many books does she have?
6. A broken stick measures 8 inches. Kavya uses the broken stick to measure the length of a rope. The rope is 28 times longer than the broken stick. Find the length of the rope.
7. A nail manufacturing company packs 820 nails in a carton. How many nails are there in 6 cartons?
8. Suresh plans a field trip to Hyderabad. He rents a room in a hotel at a cost of Rs. 275 per day. If he stays in the hotel for 10 days, how much does he need to pay?
9. Pranav works as a carpenter for a furniture company. He earns Rs. 520 per week. How much does he earn in 5 weeks?
10. Rohini uses her laptop for 15 hours. If the average power consumption of the laptop per hour is 245 watts, how much power does she use?
11. Classic Screws Pvt. Ltd. packs 675 screws into each carton. How many screws are needed to pack 63 cartons?
12. A broken rod measures 9 inches. Anil uses the broken rod to measure the length of a pole. He finds the pole is 124 times the length of the broken rod. Find the length of the pole.

VERBAL PROBLEMS BASED ON DIVISION

1. Priya bought 12 chocolates and gave 3 chocolates to each of her friends. How many friends did she give chocolate to?
2. Ravi saved 15 dollars in a piggy bank in 5 days. If he saved equal amounts each day, find the number of dollars he saved in one day.
3. Kavitha won 3 games and scored 9 points. She scored the same number of points in each game. How many points did she score in each game?
4. A rabbit eats 10 carrots in 5 days. How many carrots does it eat in a day?
5. Neha drinks 15 cups of tea in 5 days. How many cups does she drink in a day?
6. Rahul bought 5 pairs of shoes for Rs.250. What is the cost of each pair of shoes?
7. Anand bought 72 candies and gave 6 candies to everyone in his class. How many students are in Anand's class?
8. Vishal formed 9 equal groups out of 54 students. Find the number of students in each group.
9. Meera collected 48 marbles and equally distributed them in 6 boxes. Find the number of marbles in each box.
10. Pooja ordered 8 cakes. She paid Rs.400. What is the cost of each cake?
11. The maintenance charge collected from 10 houses is Rs.250. What is the maintenance charge per house?
12. Star Electronics company sends announcements to employees by email. 4 executives sent emails to 280 employees. What is the number of emails sent by each executive?

Decimal Addition

1. 6.5 + 2.5 =_____
2. 8.5 + 3.5 =_____
3. 2.5 + 4.5 =_____
4. 2.5 + 3.5 =_____
5. 4.5 + 5.5 =_____
6. 9.5 + 8.5 =_____
7. 8.5 + 9.5 =_____
8. 6.5 + 4.5 =_____
9. 1.5 + 5.5 =_____
10. 9.5 + 4.5 =_____
11. 2.5 + 4.5 =_____
12. 9.5 + 9.5 =_____
13. 7.5 + 5.5 =_____
14. 6.5 + 4.5 =_____
15. 2.5 + 7.5 =_____
16. 2.5 + 7.5 =_____
17. 9.5 + 4.5 =_____
18. 3.5 + 1.5 =_____
19. 6.5 + 8.5 =_____
20. 9.5 + 7.5 =_____
1. 0.3 + 0.3 =_____
2. 0.7 + 0.7 =_____
3. 0.6 + 0.4 =_____
4. 0.3 + 0.6 =_____
5. 0.5 + 0.3 =_____
6. 0.7 + 0.4 =_____
7. 0.4 + 0.5 =_____
8. 0.3 + 0.8 =_____
9. 0.9 + 0.8 =_____
10. 0.4 + 0.1 =_____
11. 0.2 + 0.4 =_____
12. 0.7 + 0.7 =_____
13. 0.9 + 0.6 =_____
14. 0.3 + 0.1 =_____
15. 0.3 + 0.4 =_____
16. 0.2 + 0.1 =_____
17. 0.7 + 0.7 =_____
18. 0.2 + 0.7 =_____
19. 0.1 + 0.6 =_____
20. 0.3 + 0.1 =_____
1. 9.9 + 0.2 =_____
2. 4.1 + 0.4 =_____
3. 7.1 + 0.6 =_____
4. 4.3 + 0.5 =_____
5. 5.9 + 0.2 =_____
6. 9.4 + 0.2 =_____
7. 3.5 + 0.7 =_____
8. 6.9 + 0.4 =_____
9. 2.9 + 0.6 =_____
10. 7.3 + 0.9 =_____
11. 6.8 + 0.7 =_____
12. 8.4 + 0.9 =_____
13. 8.6 + 0.5 =_____
14. 5.7 + 0.9 =_____
15. 6.3 + 0.6 =_____
16. 3.5 + 0.2 =_____
17. 4.4 + 0.3 =_____
18. 3.6 + 0.4 =_____
19. 8.4 + 0.3 =_____
20. 6.3 + 0.1 =_____
1. 8 + 0.6 + 0.01 =_____
2. 7 + 0.7 + 0.08 =_____
3. 6 + 0.5 + 0.08 =_____
4. 3 + 0.5 + 0.09 =_____
5. 5 + 0.7 + 0.02 =_____
6. 6 + 0.8 + 0.04 =_____
7. 3 + 0.3 + 0.07 =_____
8. 9 + 0.5 + 0.02 =_____
9. 5 + 0.6 + 0.01 =_____
10. 3 + 0.6 + 0.07 =_____
11. 4 + 0.6 + 0.03 =_____
12. 5 + 0.4 + 0.07 =_____
13. 3 + 0.8 + 0.09 =_____
14. 5 + 0.3 + 0.06 =_____
15. 3 + 0.4 + 0.02 =_____
16. 1 + 0.7 + 0.01 =_____
17. 4 + 0.8 + 0.09 =_____
18. 9 + 0.3 + 0.08 =_____
19. 4 + 0.3 + 0.02 =_____
20. 8 + 0.7 + 0.04 =_____

Decimal Subtraction

1. 9 − 0.2 =_____
2. 7 − 0.2 =_____
3. 6 − 0.6 =_____
4. 4 − 0.7 =_____
5. 5 − 0.2 =_____
6. 1 − 0.8 =_____
7. 8 − 0.3 =_____
8. 3 − 0.4 =_____
9. 3 − 0.5 =_____
10. 4 − 0.7 =_____
11. 9 − 0.4 =_____
12. 5 − 0.6 =_____
13. 9 − 0.7 =_____
14. 7 − 0.7 =_____
15. 5 − 0.3 =_____
16. 6 − 0.3 =_____
17. 9 − 0.9 =_____
18. 4 − 0.5 =_____
19. 9 − 0.8 =_____
20. 6 − 0.6 =_____
1. 51 − 0.8 =_____
2. 34 − 0.3 =_____
3. 72 − 0.1 =_____
4. 15 − 0.8 =_____
5. 18 − 0.2 =_____
6. 39 − 0.9 =_____
7. 67 − 0.1 =_____
8. 30 − 0.3 =_____
9. 75 − 0.9 =_____
10. 39 − 0.2 =_____
11. 59 − 0.2 =_____
12. 97 − 0.2 =_____
13. 56 − 0.1 =_____
14. 89 − 0.5 =_____
15. 97 − 0.9 =_____
16. 68 − 0.6 =_____
17. 71 − 0.5 =_____
18. 45 − 0.9 =_____
19. 99 − 0.5 =_____
20. 40 − 0.7 =_____
1. 6 − 2.5 =_____
2. 7 − 2.5 =_____
3. 5 − 1.5 =_____
4. 8 − 6.5 =_____
5. 9 − 8.5 =_____
6. 4 − 3.5 =_____
7. 9 − 4.5 =_____
8. 3 − 2.5 =_____
9. 3 − 1.5 =_____
10. 6 − 3.5 =_____
11. 9 − 1.5 =_____
12. 9 − 1.5 =_____
13. 9 − 3.5 =_____
14. 7 − 1.5 =_____
15. 4 − 1.5 =_____
16. 7 − 5.5 =_____
17. 8 − 2.5 =_____
18. 6 − 2.5 =_____
19. 4 − 1.5 =_____
20. 7 − 6.5 =_____
1. 7.3 − 0.5 =_____
2. 3.8 − 0.7 =_____
3. 1.1 − 0.6 =_____
4. 9.6 − 0.4 =_____
5. 1.6 − 0.6 =_____
6. 9.4 − 0.2 =_____
7. 9.6 − 0.8 =_____
8. 4.2 − 0.3 =_____
9. 5.7 − 0.9 =_____
10. 8.7 − 0.5 =_____
11. 7.1 − 0.1 =_____
12. 3.8 − 0.6 =_____
13. 4.2 − 0.3 =_____
14. 4.5 − 0.6 =_____
15. 2.5 − 0.6 =_____
16. 5.1 − 0.8 =_____
17. 1.2 − 0.9 =_____
18. 2.6 − 0.9 =_____
19. 1.9 − 0.8 =_____
20. 5.5 − 0.5 =_____

Decimal Multiplication

1. 1 × 0.2 = _____
2. 1 × 0.9 = _____
3. 1 × 0.7 = _____
4. 7 × 0.8 = _____
5. 2 × 0.9 = _____
6. 6 × 0.1 = _____
7. 7 × 0.3 = _____
8. 8 × 0.4 = _____
9. 3 × 0.1 = _____
10. 1 × 0.4 = _____
11. 3 × 0.4 = _____
12. 6 × 0.4 = _____
13. 2 × 0.1 = _____
14. 4 × 0.3 = _____
15. 7 × 0.2 = _____
16. 2 × 0.5 = _____
17. 2 × 0.6 = _____
18. 1 × 0.1 = _____
19. 8 × 0.8 = _____
20. 6 × 0.6 = _____
1. 80 × 0.6 = _____
2. 30 × 0.9 = _____
3. 70 × 0.4 = _____
4. 50 × 0.1 = _____
5. 50 × 0.9 = _____
6. 10 × 0.7 = _____
7. 80 × 0.2 = _____
8. 40 × 0.4 = _____
9. 60 × 0.3 = _____
10. 60 × 0.1 = _____
11. 30 × 0.8 = _____
12. 50 × 0.4 = _____
13. 20 × 0.1 = _____
14. 50 × 0.5 = _____
15. 70 × 0.7 = _____
16. 80 × 0.8 = _____
17. 90 × 0.3 = _____
18. 80 × 0.3 = _____
19. 30 × 0.5 = _____
20. 10 × 0.3 = _____
1. 0.4 × 0.9 = _____
2. 0.2 × 0.3 = _____
3. 0.6 × 0.2 = _____
4. 0.5 × 0.8 = _____
5. 0.5 × 0.7 = _____
6. 0.1 × 0.2 = _____
7. 0.9 × 0.2 = _____
8. 0.4 × 0.8 = _____
9. 0.3 × 0.3 = _____
10. 0.6 × 0.3 = _____
11. 0.7 × 0.2 = _____
12. 0.5 × 0.4 = _____
13. 0.3 × 0.1 = _____
14. 0.8 × 0.1 = _____
15. 0.6 × 0.7 = _____
16. 0.7 × 0.4 = _____
17. 0.8 × 0.5 = _____
18. 0.5 × 0.1 = _____
19. 0.9 × 0.6 = _____
20. 0.3 × 0.2 = _____
1. 0.7 × 7 = _____
2. 0.3 × 5 = _____
3. 0.6 × 4 = _____
4. 0.1 × 6 = _____
5. 0.7 × 2 = _____
6. 0.4 × 1 = _____
7. 0.2 × 4 = _____
8. 0.8 × 9 = _____
9. 0.5 × 3 = _____
10. 0.7 × 9 = _____
11. 0.6 × 8 = _____
12. 0.6 × 2 = _____
13. 0.2 × 6 = _____
14. 0.6 × 3 = _____
15. 0.9 × 9 = _____
16. 0.6 × 9 = _____
17. 0.3 × 4 = _____
18. 0.4 × 9 = _____
19. 0.4 × 6 = _____
20. 0.1 × 2 = _____

Decimal Division

1. 415 ÷ 10 = _____
2. 303 ÷ 10 = _____
3. 569 ÷ 10 = _____
4. 362 ÷ 10 = _____
5. 865 ÷ 10 = _____
6. 454 ÷ 10 = _____
7. 471 ÷ 10 = _____
8. 713 ÷ 10 = _____
9. 688 ÷ 10 = _____
10. 891 ÷ 10 = _____
11. 629 ÷ 10 = _____
12. 472 ÷ 10 = _____
13. 453 ÷ 10 = _____
14. 670 ÷ 10 = _____
15. 571 ÷ 10 = _____
16. 175 ÷ 10 = _____
17. 852 ÷ 10 = _____
18. 579 ÷ 10 = _____
19. 610 ÷ 10 = _____
20. 689 ÷ 10 = _____
1. 23 ÷ 100 = _____
2. 43 ÷ 100 = _____
3. 50 ÷ 100 = _____
4. 17 ÷ 100 = _____
5. 42 ÷ 100 = _____
6. 11 ÷ 100 = _____
7. 54 ÷ 100 = _____
8. 12 ÷ 100 = _____
9. 20 ÷ 100 = _____
10. 85 ÷ 100 = _____
11. 76 ÷ 100 = _____
12. 88 ÷ 100 = _____
13. 61 ÷ 100 = _____
14. 96 ÷ 100 = _____
15. 25 ÷ 100 = _____
16. 21 ÷ 100 = _____
17. 14 ÷ 100 = _____
18. 55 ÷ 100 = _____
19. 30 ÷ 100 = _____
20. 83 ÷ 100 = _____
1. 296 ÷ 2 = _____
2. 226 ÷ 2 = _____
3. 395 ÷ 2 = _____
4. 196 ÷ 2 = _____
5. 915 ÷ 2 = _____
6. 901 ÷ 2 = _____
7. 707 ÷ 2 = _____
8. 471 ÷ 2 = _____
9. 448 ÷ 2 = _____
10. 757 ÷ 2 = _____
11. 705 ÷ 2 = _____
12. 554 ÷ 2 = _____
13. 293 ÷ 2 = _____
14. 110 ÷ 2 = _____
15. 964 ÷ 2 = _____
16. 158 ÷ 2 = _____
17. 613 ÷ 2 = _____
18. 576 ÷ 2 = _____
19. 586 ÷ 2 = _____
20. 876 ÷ 2 = _____
21. 507 ÷ 2 = _____
22. 388 ÷ 2 = _____
23. 351 ÷ 2 = _____
24. 728 ÷ 2 = _____
25. 204 ÷ 2 = _____
26. 289 ÷ 2 = _____
27. 608 ÷ 2 = _____
28. 735 ÷ 2 = _____
29. 700 ÷ 2 = _____
30. 255 ÷ 2 = _____
31. 369 ÷ 2 = _____
32. 802 ÷ 2 = _____
33. 367 ÷ 2 = _____
34. 645 ÷ 2 = _____
35. 897 ÷ 2 = _____
36. 365 ÷ 2 = _____
37. 201 ÷ 2 = _____
38. 624 ÷ 2 = _____
39. 737 ÷ 2 = _____
40. 716 ÷ 2 = _____

Decimal Addition

1. 8 + 0.1 + 0.8 =_____
2. 6 + 0.3 + 0.1 =_____
3. 1 + 0.1 + 0.8 =_____
4. 3 + 0.4 + 0.8 =_____
5. 7 + 0.2 + 0.7 =_____
6. 9 + 0.3 + 0.6 =_____
7. 3 + 0.5 + 0.4 =_____
8. 2 + 0.7 + 0.9 =_____
9. 1 + 0.5 + 0.6 =_____
10. 7 + 0.5 + 0.9 =_____
11. 6 + 0.3 + 0.7 =_____
12. 3 + 0.6 + 0.9 =_____
13. 7 + 0.7 + 0.6 =_____
14. 7 + 0.6 + 0.3 =_____
15. 2 + 0.7 + 0.2 =_____
16. 7 + 0.3 + 0.5 =_____
17. 8 + 0.8 + 0.1 =_____
18. 1 + 0.3 + 0.4 =_____
19. 9 + 0.8 + 0.8 =_____
20. 1 + 0.6 + 0.9 =_____

1. 0.7 + 0.4 + 0.4 =_____
2. 0.3 + 0.6 + 0.6 =_____
3. 0.9 + 0.4 + 0.4 =_____
4. 0.9 + 0.6 + 0.4 =_____
5. 0.1 + 0.3 + 0.8 =_____
6. 0.4 + 0.3 + 0.5 =_____
7. 0.4 + 0.7 + 0.5 =_____
8. 0.8 + 0.8 + 0.3 =_____
9. 0.7 + 0.7 + 0.4 =_____
10. 0.3 + 0.5 + 0.6 =_____
11. 0.2 + 0.2 + 0.3 =_____
12. 0.8 + 0.8 + 0.1 =_____
13. 0.5 + 0.7 + 0.3 =_____
14. 0.4 + 0.2 + 0.1 =_____
15. 0.7 + 0.6 + 0.3 =_____
16. 0.6 + 0.4 + 0.1 =_____
17. 0.3 + 0.3 + 0.5 =_____
18. 0.1 + 0.3 + 0.5 =_____
19. 0.3 + 0.8 + 0.7 =_____
20. 0.3 + 0.3 + 0.4 =_____

1. 5.1 + 0.9 =_____
2. 8.1 + 0.9 =_____
3. 4.1 + 0.9 =_____
4. 9.6 + 0.9 =_____
5. 5.3 + 0.9 =_____
6. 9.6 + 0.9 =_____
7. 5.8 + 0.9 =_____
8. 5.3 + 0.9 =_____
9. 6.3 + 0.9 =_____
10. 9.1 + 0.9 =_____
11. 9.7 + 0.9 =_____
12. 6.1 + 0.9 =_____
13. 9.7 + 0.9 =_____
14. 9.9 + 0.9 =_____
15. 1.5 + 0.9 =_____
16. 1.5 + 0.9 =_____
17. 6.7 + 0.9 =_____
18. 6.4 + 0.9 =_____
19. 9.7 + 0.9 =_____
20. 6.9 + 0.9 =_____

1. 7.75 + 7.25 =_____
2. 2.75 + 6.25 =_____
3. 3.75 + 3.25 =_____
4. 7.75 + 3.25 =_____
5. 2.75 + 3.25 =_____
6. 8.75 + 3.25 =_____
7. 7.75 + 2.25 =_____
8. 5.75 + 8.25 =_____
9. 3.75 + 9.25 =_____
10. 1.75 + 5.25 =_____
11. 8.75 + 6.25 =_____
12. 6.75 + 7.25 =_____
13. 8.75 + 4.25 =_____
14. 3.75 + 6.25 =_____
15. 7.75 + 2.25 =_____
16. 9.75 + 9.25 =_____
17. 2.75 + 2.25 =_____
18. 7.75 + 5.25 =_____
19. 2.75 + 4.25 =_____
20. 2.75 + 3.25 =_____

Decimal Subtraction

1. 1 − 0.89 =_____
2. 1 − 0.48 =_____
3. 1 − 0.42 =_____
4. 1 − 0.22 =_____
5. 1 − 0.43 =_____
6. 1 − 0.47 =_____
7. 1 − 0.86 =_____
8. 1 − 0.86 =_____
9. 1 − 0.49 =_____
10. 1 − 0.91 =_____
11. 1 − 0.38 =_____
12. 1 − 0.12 =_____
13. 1 − 0.76 =_____
14. 1 − 0.27 =_____
15. 1 − 0.94 =_____
16. 1 − 0.52 =_____
17. 1 − 0.21 =_____
18. 1 − 0.51 =_____
19. 1 − 0.39 =_____
20. 1 − 0.69 =_____

1. 29 − 0.62 =_____
2. 48 − 0.35 =_____
3. 46 − 0.37 =_____
4. 87 − 0.42 =_____
5. 47 − 0.06 =_____
6. 89 − 0.63 =_____
7. 37 − 0.24 =_____
8. 90 − 0.15 =_____
9. 91 − 0.59 =_____
10. 97 − 0.95 =_____
11. 16 − 0.74 =_____
12. 62 − 0.76 =_____
13. 42 − 0.88 =_____
14. 35 − 0.48 =_____
15. 69 − 0.51 =_____
16. 19 − 0.34 =_____
17. 30 − 0.12 =_____
18. 45 − 0.73 =_____
19. 44 − 0.34 =_____
20. 71 − 0.64 =_____

1. 100 − 90.1 =_____
2. 100 − 60.6 =_____
3. 100 − 54.9 =_____
4. 100 − 38.3 =_____
5. 100 − 80.8 =_____
6. 100 − 20.9 =_____
7. 100 − 59.5 =_____
8. 100 − 77.1 =_____
9. 100 − 12.7 =_____
10. 100 − 68.7 =_____
11. 100 − 73.5 =_____
12. 100 − 13.8 =_____
13. 100 − 52.1 =_____
14. 100 − 27.8 =_____
15. 100 − 20.1 =_____
16. 100 − 94.7 =_____
17. 100 − 53.8 =_____
18. 100 − 24.6 =_____
19. 100 − 13.7 =_____
20. 100 − 15.3 =_____

1. 6.5 − 0.9 =_____
2. 6.4 − 0.9 =_____
3. 7.2 − 0.9 =_____
4. 5.3 − 0.9 =_____
5. 2.9 − 0.9 =_____
6. 9.7 − 0.9 =_____
7. 6.9 − 0.9 =_____
8. 2.3 − 0.9 =_____
9. 9.7 − 0.9 =_____
10. 8.1 − 0.9 =_____
11. 4.5 − 0.9 =_____
12. 4.7 − 0.9 =_____
13. 7.5 − 0.9 =_____
14. 9.2 − 0.9 =_____
15. 8.4 − 0.9 =_____
16. 3.6 − 0.9 =_____
17. 1.3 − 0.9 =_____
18. 8.7 − 0.9 =_____
19. 9.5 − 0.9 =_____
20. 5.4 − 0.9 =_____

Decimal Multiplication

1. 40 × 0.5 = _____
2. 20 × 0.5 = _____
3. 90 × 0.5 = _____
4. 60 × 0.5 = _____
5. 70 × 0.5 = _____
6. 30 × 0.5 = _____
7. 80 × 0.5 = _____
8. 10 × 0.5 = _____
9. 50 × 0.5 = _____
10. 60 × 0.5 = _____
11. 60 × 0.5 = _____
12. 80 × 0.5 = _____
13. 70 × 0.5 = _____
14. 40 × 0.5 = _____
15. 60 × 0.5 = _____
16. 30 × 0.5 = _____
17. 20 × 0.5 = _____
18. 40 × 0.5 = _____
19. 50 × 0.5 = _____
20. 80 × 0.5 = _____
1. 22 × 0.5 = _____
2. 20 × 0.5 = _____
3. 23 × 0.5 = _____
4. 26 × 0.5 = _____
5. 29 × 0.5 = _____
6. 25 × 0.5 = _____
7. 24 × 0.5 = _____
8. 28 × 0.5 = _____
9. 27 × 0.5 = _____
10. 21 × 0.5 = _____
11. 24 × 0.5 = _____
12. 22 × 0.5 = _____
13. 21 × 0.5 = _____
14. 26 × 0.5 = _____
15. 27 × 0.5 = _____
16. 25 × 0.5 = _____
17. 24 × 0.5 = _____
18. 23 × 0.5 = _____
19. 20 × 0.5 = _____
20. 22 × 0.5 = _____
1. 36 × 0.5 = _____
2. 33 × 0.5 = _____
3. 39 × 0.5 = _____
4. 35 × 0.5 = _____
5. 31 × 0.5 = _____
6. 30 × 0.5 = _____
7. 34 × 0.5 = _____
8. 32 × 0.5 = _____
9. 38 × 0.5 = _____
10. 37 × 0.5 = _____
11. 32 × 0.5 = _____
12. 32 × 0.5 = _____
13. 30 × 0.5 = _____
14. 34 × 0.5 = _____
15. 39 × 0.5 = _____
16. 37 × 0.5 = _____
17. 39 × 0.5 = _____
18. 33 × 0.5 = _____
19. 34 × 0.5 = _____
20. 38 × 0.5 = _____
1. 10 × 0.9 = _____
2. 40 × 0.6 = _____
3. 20 × 0.2 = _____
4. 90 × 0.5 = _____
5. 10 × 0.5 = _____
6. 50 × 0.5 = _____
7. 70 × 0.9 = _____
8. 80 × 0.8 = _____
9. 50 × 0.7 = _____
10. 10 × 0.4 = _____
11. 40 × 0.1 = _____
12. 40 × 0.4 = _____
13. 30 × 0.4 = _____
14. 80 × 0.1 = _____
15. 20 × 0.5 = _____
16. 80 × 0.4 = _____
17. 70 × 0.1 = _____
18. 10 × 0.8 = _____
19. 40 × 0.7 = _____
20. 70 × 0.4 = _____

OPERATIONS ON INTEGERS - 1

1) 21 − 66 =_____
2) 14 − 85 =_____
3) 21 − 87 =_____
4) 22 − 75 =_____
5) 24 − 57 =_____
6) 34 − 77 =_____
7) 41 − 88 =_____
8) 12 − 89 =_____
9) 42 − 78 =_____
10) 14 − 88 =_____
11) 11 − 79 =_____
12) 24 − 66 =_____
13) 41 − 57 =_____
14) 14 − 87 =_____
15) 34 − 96 =_____
16) 22 − 68 =_____
17) 12 − 96 =_____
18) 44 − 59 =_____
19) 34 − 75 =_____
20) 14 − 86 =_____
21) 13 − 76 =_____
22) 32 − 99 =_____
23) 42 − 86 =_____
24) 41 − 75 =_____
25) 21 − 75 =_____
26) 34 − 65 =_____
27) 34 − 66 =_____
28) 23 − 87 =_____
29) 42 − 67 =_____
30) 44 − 67 =_____
31) 44 − 55 =_____
32) 42 − 98 =_____
33) 11 − 69 =_____
34) 43 − 65 =_____
35) 31 − 59 =_____
36) 21 − 56 =_____
37) 34 − 95 =_____
38) 11 − 86 =_____
39) 34 − 89 =_____
40) 13 − 99 =_____

OPERATIONS ON INTEGERS - 2

1) $1 + (5 - 4) =$_____
2) $1 + (9 - 4) =$_____
3) $4 + (4 - 5) =$_____
4) $2 + (9 - 1) =$_____
5) $3 + (1 - 8) =$_____
6) $4 + (8 - 1) =$_____
7) $1 + (1 - 9) =$_____
8) $1 + (4 - 8) =$_____
9) $4 + (4 - 7) =$_____
10) $1 + (8 - 1) =$_____
11) $4 + (1 - 6) =$_____
12) $3 + (1 - 8) =$_____
13) $1 + (2 - 8) =$_____
14) $4 + (4 - 6) =$_____
15) $2 + (5 - 3) =$_____
16) $1 + (1 - 8) =$_____
17) $1 + (9 - 1) =$_____
18) $2 + (9 - 3) =$_____
19) $4 + (5 - 1) =$_____
20) $2 + (3 - 7) =$_____
21) $3 + (9 - 2) =$_____
22) $3 + (2 - 6) =$_____
23) $2 + (3 - 8) =$_____
24) $4 + (8 - 2) =$_____
25) $1 + (6 - 3) =$_____
26) $1 + (1 - 7) =$_____
27) $4 + (4 - 8) =$_____
28) $4 + (9 - 1) =$_____
29) $3 + (2 - 8) =$_____
30) $4 + (9 - 4) =$_____
31) $4 + (8 - 3) =$_____
32) $1 + (8 - 2) =$_____
33) $1 + (5 - 3) =$_____
34) $4 + (5 - 4) =$_____
35) $3 + (1 - 9) =$_____
36) $4 + (3 - 6) =$_____
37) $1 + (8 - 1) =$_____
38) $3 + (6 - 3) =$_____
39) $2 + (2 - 8) =$_____
40) $2 + (3 - 9) =$_____

OPERATIONS ON INTEGERS - 3

1) −1 − 2 =_____
2) −1 − 4 =_____
3) −4 − (−3) =_____
4) −2 − 4 =_____
5) −3 − 3 =_____
6) −1 − 2 =_____
7) −2 − (−2) =_____
8) −1 − (−3) =_____
9) −3 − (−1) =_____
10) −2 − (−3) =_____
11) −3 − (−1) =_____
12) −4 − 1 =_____
13) −1 − (−3) =_____
14) −4 − 3 =_____
15) −4 − (−1) =_____
16) −2 − 2 =_____
17) −3 − (−3) =_____
18) −2 − 3 =_____
19) −1 − (−4) =_____
20) −4 − 4 =_____
21) −3 − (−4) =_____
22) −4 − (−4) =_____
23) −2 − 2 =_____
24) −2 − (−3) =_____
25) −4 − 2 =_____
26) −2 − 4 =_____
27) −1 − 4 =_____
28) −1 − 1 =_____
29) −3 − 4 =_____
30) −3 − 2 =_____
31) −1 − (−1) =_____
32) −3 − 3 =_____
33) −2 − 2 =_____
34) −3 − 3 =_____
35) −3 − (−3) =_____
36) −1 − (−4) =_____
37) −1 − (−3) =_____
38) −3 − (−2) =_____
39) −4 − (−4) =_____
40) −3 − (−2) =_____

OPERATIONS ON INTEGERS - 4

1) $(6-2)-(9-1)=$_____
2) $(8-3)-(7-4)=$_____
3) $(5-3)-(5-1)=$_____
4) $(8-2)-(6-4)=$_____
5) $(8-3)-(6-1)=$_____
6) $(7-1)-(6-1)=$_____
7) $(7-4)-(6-2)=$_____
8) $(9-3)-(5-4)=$_____
9) $(7-1)-(5-2)=$_____
10) $(9-1)-(5-4)=$_____
11) $(6-4)-(8-3)=$_____
12) $(6-3)-(9-1)=$_____
13) $(9-1)-(6-4)=$_____
14) $(5-4)-(8-1)=$_____
15) $(5-4)-(9-1)=$_____
16) $(7-4)-(7-2)=$_____
17) $(8-3)-(7-2)=$_____
18) $(8-2)-(9-1)=$_____
19) $(7-3)-(8-3)=$_____
20) $(5-1)-(6-2)=$_____
21) $(1-7)-(4-6)=$_____
22) $(3-7)-(3-6)=$_____
23) $(3-8)-(4-7)=$_____
24) $(4-6)-(3-5)=$_____
25) $(1-6)-(1-9)=$_____
26) $(1-8)-(1-9)=$_____
27) $(4-7)-(2-9)=$_____
28) $(4-5)-(2-8)=$_____
29) $(2-8)-(4-5)=$_____
30) $(4-5)-(1-8)=$_____
31) $(2-9)-(1-5)=$_____
32) $(4-5)-(3-6)=$_____
33) $(1-8)-(4-5)=$_____
34) $(4-5)-(1-9)=$_____
35) $(1-9)-(4-5)=$_____
36) $(2-5)-(4-5)=$_____
37) $(3-8)-(4-6)=$_____
38) $(1-8)-(4-6)=$_____
39) $(2-9)-(3-7)=$_____
40) $(1-7)-(1-8)=$_____

OPERATIONS ON INTEGERS - 5

1) $(6-4)-(9-9)=$_____
2) $(2-7)-(4-5)=$_____
3) $(6-8)-(3-8)=$_____
4) $(4-7)-(5-8)=$_____
5) $(8-9)-(8-7)=$_____
6) $(9-3)-(4-5)=$_____
7) $(6-9)-(9-5)=$_____
8) $(2-7)-(2-1)=$_____
9) $(1-8)-(2-1)=$_____
10) $(5-8)-(1-3)=$_____
11) $(4-9)-(9-5)=$_____
12) $(5-1)-(6-8)=$_____
13) $(9-9)-(3-4)=$_____
14) $(7-7)-(5-9)=$_____
15) $(8-2)-(6-8)=$_____
16) $(4-9)-(6-6)=$_____
17) $(2-1)-(9-5)=$_____
18) $(1-5)-(8-1)=$_____
19) $(8-4)-(2-9)=$_____
20) $(1-3)-(1-8)=$_____
21) $(9-1)-(4-6)=$_____
22) $(7-2)-(1-8)=$_____
23) $(7-2)-(3-7)=$_____
24) $(1-8)-(9-1)=$_____
25) $(1-9)-(7-2)=$_____
26) $(1-7)-(9-5)=$_____
27) $(9-1)-(1-8)=$_____
28) $(8-1)-(2-9)=$_____
29) $(1-8)-(7-2)=$_____
30) $(1-9)-(9-1)=$_____
31) $(8-2)-(1-8)=$_____
32) $(2-8)-(9-1)=$_____
33) $(6-3)-(1-7)=$_____
34) $(9-2)-(3-6)=$_____
35) $(6-3)-(3-6)=$_____
36) $(9-3)-(8-9)=$_____
37) $(6-8)-(8-8)=$_____
38) $(5-7)-(4-8)=$_____
39) $(2-1)-(4-6)=$_____
40) $(8-2)-(4-7)=$_____

OPERATIONS ON INTEGERS - 6

1) $-7 \times 3 =$_____
2) $-6 \times 6 =$_____
3) $3 \times -5 =$_____
4) $-7 \times -8 =$_____
5) $-6 \times -8 =$_____
6) $8 \times -2 =$_____
7) $4 \times -7 =$_____
8) $9 \times -9 =$_____
9) $8 \times -5 =$_____
10) $3 \times -1 =$_____
11) $-6 \times -4 =$_____
12) $-9 \times 2 =$_____
13) $-8 \times 9 =$_____
14) $-7 \times -3 =$_____
15) $-2 \times -5 =$_____
16) $7 \times -8 =$_____
17) $-6 \times -2 =$_____
18) $9 \times -7 =$_____
19) $-1 \times 8 =$_____
20) $-1 \times -1 =$_____
21) $-1 \times -6 =$_____
22) $-5 \times -6 =$_____
23) $-8 \times -2 =$_____
24) $6 \times -1 =$_____
25) $-6 \times 1 =$_____
26) $-5 \times -1 =$_____
27) $-8 \times -9 =$_____
28) $-1 \times 4 =$_____
29) $9 \times -6 =$_____
30) $-7 \times -5 =$_____
31) $8 \times -4 =$_____
32) $-9 \times 1 =$_____
33) $-7 \times -2 =$_____
34) $3 \times -6 =$_____
35) $-4 \times 8 =$_____
36) $-1 \times 1 =$_____
37) $-1 \times 5 =$_____
38) $7 \times -3 =$_____
39) $-8 \times 3 =$_____
40) $2 \times -4 =$_____

OPERATIONS ON INTEGERS - 7

1) $-64 \div 4 =$_____
2) $-55 \div 5 =$_____
3) $78 \div -3 =$_____
4) $-88 \div -4 =$_____
5) $74 \div -2 =$_____
6) $88 \div -2 =$_____
7) $86 \div -2 =$_____
8) $-80 \div -8 =$_____
9) $-48 \div 4 =$_____
10) $-80 \div 4 =$_____
11) $75 \div -3 =$_____
12) $-44 \div 2 =$_____
13) $36 \div -2 =$_____
14) $-12 \div -4 =$_____
15) $-36 \div -3 =$_____
16) $18 \div -9 =$_____
17) $60 \div -6 =$_____
18) $-40 \div -5 =$_____
19) $-66 \div -2 =$_____
20) $-96 \div 4 =$_____
21) $-75 \div -3 =$_____
22) $-33 \div -3 =$_____
23) $-92 \div 4 =$_____
24) $52 \div -4 =$_____
25) $-63 \div 7 =$_____
26) $-52 \div 2 =$_____
27) $95 \div -5 =$_____
28) $-50 \div 5 =$_____
29) $-78 \div 2 =$_____
30) $-18 \div 6 =$_____
31) $56 \div -8 =$_____
32) $25 \div -5 =$_____
33) $-90 \div 5 =$_____
34) $-45 \div -5 =$_____
35) $-18 \div -3 =$_____
36) $-14 \div -2 =$_____
37) $-16 \div -4 =$_____
38) $-60 \div -3 =$_____
39) $-18 \div 3 =$_____
40) $32 \div -8 =$_____

OPERATIONS ON INTEGERS - 8

1) $-5 \times 1 \div 5 =$_____

2) $-6 \times 8 \div 8 =$_____

3) $-9 \times -8 \div 4 =$_____

4) $-9 \times 6 \div 3 =$_____

5) $4 \times -5 \div 4 =$_____

6) $9 \times -9 \div 9 =$_____

7) $-9 \times 7 \div 7 =$_____

8) $8 \times -5 \div 5 =$_____

9) $-8 \times -8 \div 4 =$_____

10) $-6 \times 7 \div 6 =$_____

11) $-3 \times -5 \div 3 =$_____

12) $-7 \times 9 \div 3 =$_____

13) $-5 \times -4 \div 5 =$_____

14) $4 \times -7 \div 4 =$_____

15) $-9 \times 2 \div 9 =$_____

16) $6 \times -9 \div 2 =$_____

17) $9 \times -2 \div 3 =$_____

18) $-9 \times -9 \div 9 =$_____

19) $-6 \times 5 \div 3 =$_____

20) $-6 \times -9 \div 2 =$_____

21) $8 \times -6 \div 4 =$_____

22) $-2 \times 9 \div 6 =$_____

23) $-6 \times -4 \div 2 =$_____

24) $-2 \times -4 \div 8 =$_____

25) $8 \times -5 \div 4 =$_____

26) $-4 \times 5 \div 4 =$_____

27) $7 \times -9 \div 3 =$_____

28) $-6 \times -7 \div 2 =$_____

29) $-7 \times 8 \div 4 =$_____

30) $-6 \times 8 \div 2 =$_____

31) $-7 \times -6 \div 3 =$_____

32) $-7 \times -4 \div 4 =$_____

33) $-2 \times -6 \div 2 =$_____

34) $6 \times -4 \div 6 =$_____

35) $-2 \times -6 \div 4 =$_____

36) $2 \times -3 \div 3 =$_____

37) $-8 \times 2 \div 4 =$_____

38) $-8 \times -1 \div 4 =$_____

39) $2 \times -2 \div 4 =$_____

40) $-8 \times 8 \div 8 =$_____

PROBLEMS BASED ON BODMAS RULE

1. $(-4+6) \div 2 \times -3 + 7$
2. $(8-3) \times (-2) + 5$
3. $(-12 \div 3) + (7-9)$
4. $(15 \div -5) \times (4-6)$
5. $(-9+2) \times 3 - 8$
6. $(20 \div 4) - (6 \times -2)$
7. $(-15+10) \div (-5) + 9$
8. $(18-12) \times (-3) + 7$
9. $(30 \div -6) + (9-4)$
10. $(-25+5) \div 4 - 3$
11. $(14-9) \times (-5) + 12$
12. $(-18 \div 6) + (3-7)$
13. $(22-17) \div (-5) - 4$
14. $(16 \div -8) + (9-2)$
15. $(-12+7) \times 4 - 15$
16. $(27 \div 3) - (5 \times -2)$
17. $(-20+6) \div 7 + 3$
18. $(24-10) \times (-2) - 8$
19. $(45 \div -9) + (6-11)$
20. $(-30+12) \div 6 + 4$
21. $(10-4) \times (-3) + 15$
22. $(-21 \div 7) + (8-12)$
23. $(28-19) \div (-3) - 6$
24. $(18 \div -6) + (7-5)$
25. $(-16+5) \times 3 - 10$
26. $(32 \div 8) - (4 \times -3)$
27. $(-27+9) \div (-6) + 11$
28. $(20-15) \times (-7) - 9$
29. $(36 \div -12) + (13-9)$
30. $(-40+18) \div 11 - 2$
31. $(25-20) \times (-6) + 14$
32. $(-24 \div 8) + (5-9)$
33. $(33-21) \div (-4) - 7$
34. $(42 \div -7) + (9-14)$
35. $(-18+4) \times 2 - 5$
36. $(40 \div 5) - (3 \times -6)$
37. $(-32+15) \div 7 + 6$
38. $(48-20) \times (-2) - 11$
39. $(54 \div -9) + (10-6)$
40. $(-36+9) \div 9 - 8$
41. $(12-7) \times (-4) + 9$
42. $(-45 \div 9) + (14-18)$
43. $(50-36) \div (-7) - 12$
44. $(63 \div -21) + (15-8)$
45. $(-22+11) \times 3 - 1$
46. $(56 \div 8) - (7 \times -2)$
47. $(-48+20) \div 10 + 13$
48. $(60-25) \times (-3) - 4$
49. $(72 \div -12) + (18-11)$
50. $(-50+23) \div 9 - 7$

Number System

1. Number Systems

A number system is a way of writing numbers using digits or symbols in a consistent manner. In mathematics, different sets of numbers are used depending on the context.

Different Number Sets: Definition, Notation, and Examples

a) Natural Numbers (N)

Definition: Counting numbers starting from 1 are called natural numbers.

Notation: N = {1, 2, 3, 4, ...}

Example: 5, 13, 100

b) Whole Numbers (W)

Definition: Natural numbers together with zero are called whole numbers.

Notation: W = {0, 1, 2, 3, ...}

Example: 0, 4, 25

c) Integers (Z)

Definition: All positive and negative whole numbers including zero.

Notation: Z = {..., -3, -2, -1, 0, 1, 2, 3, ...}

Example: -5, 0, 7

d) Rational Numbers (Q)

Definition: Numbers that can be expressed as p/q where p and q are integers and $q \neq 0$.

Notation: $Q = \{p/q \mid p, q \in Z, q \neq 0\}$

Example: 2/3, -4/5, 7

e) Irrational Numbers

Definition: Numbers that cannot be expressed as a ratio of two integers.

Non terminating and non recurring decimals which we cant express in p/q form.

Example: $\sqrt{2}$, π, $\sqrt{3}$

f) Real Numbers (R)

Definition: All rational and irrational numbers together form the set of real numbers.

Notation: R = Q ∪ Irrational numbers

Example: -5, 0, 3.14, $\sqrt{2}$

2. Factors

Factors of a number are exact divisors of that number.

Example: Factors of 12 = 1, 2, 3, 4, 6, 12

3. Multiples

Multiples of a number are obtained by multiplying it by natural numbers.

Example: Multiples of 4 = 4, 8, 12, 16, ...

4. Composite Numbers

Numbers having more ***than two factors*** are called composite numbers.

Example: 4, 6, 9

5. Prime Numbers

Numbers having exactly two distinct factors: 1 and itself.

Example: 2, 3, 5, 7

6. Co-prime Numbers

Two numbers are co-prime if their HCF is 1.

Example: 8 and 15

7. Odd Numbers

Numbers not divisible by 2.

Example: 1, 3, 5, 7

8. Even Numbers

Numbers divisible by **2**.

Example: 2, 4, 6, 8

9. LCM (Least Common Multiple)

The smallest multiple common to two or more numbers.

Example: LCM of 4 and 6 is 12

10. HCF (Highest Common Factor)

The greatest number that divides two or more numbers exactly.

Example: HCF of 8 and 12 is 4

Write the numbers from 1 to 100 in the following boxes:

In above numbers,

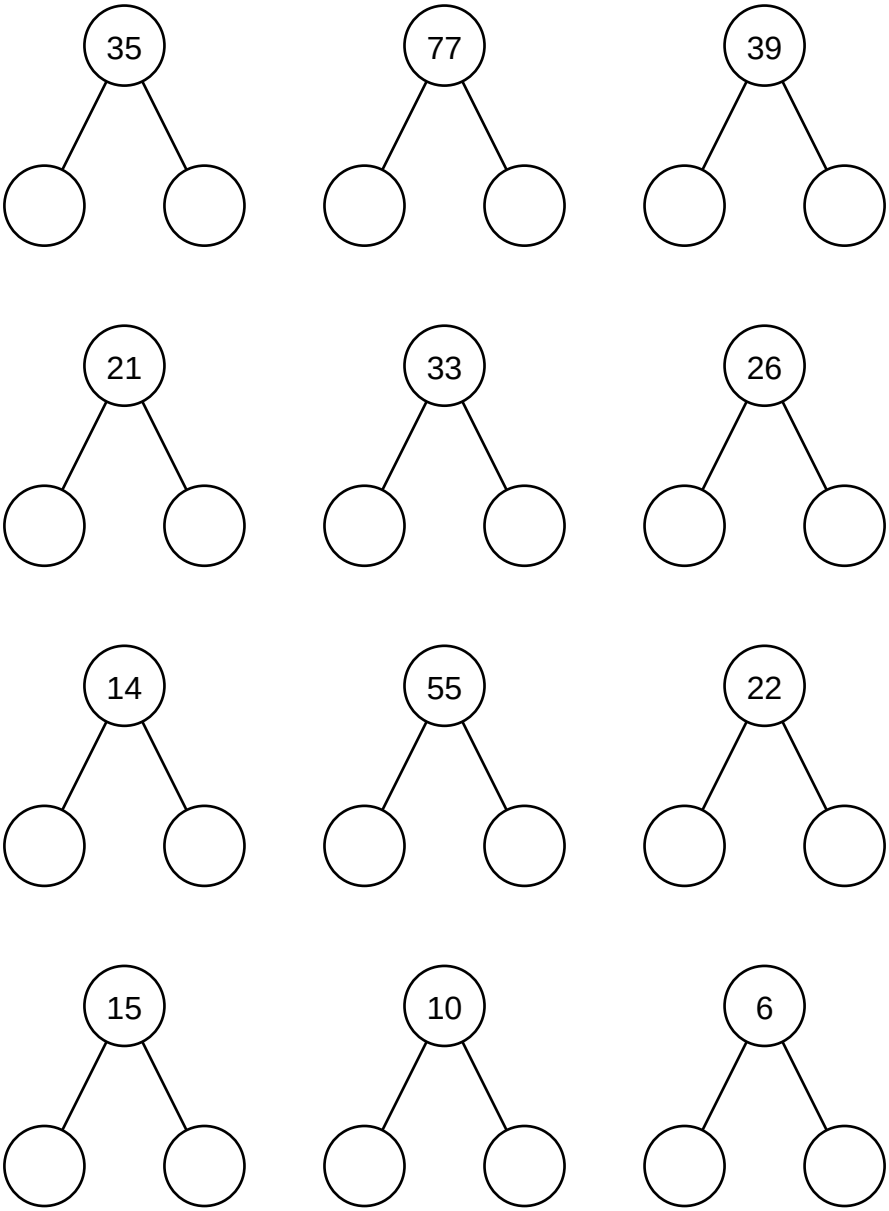
Even numbers are:

Odd Numbers are:

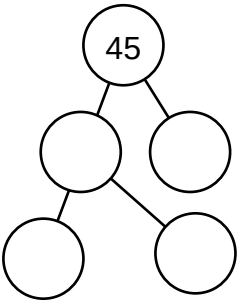
Prime Numbers are:

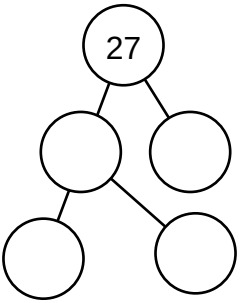
Composite Numbers are:

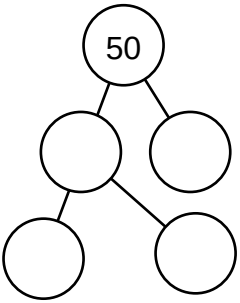
Complete the factor tree as product of two numbers.

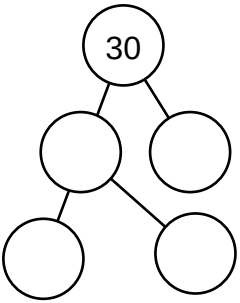


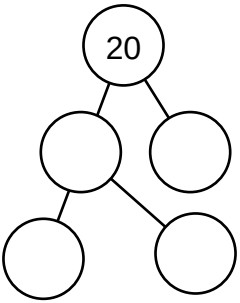
Complete the factor tree.

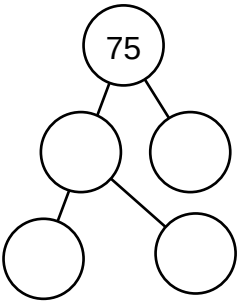


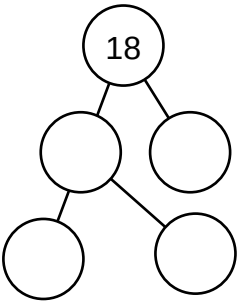


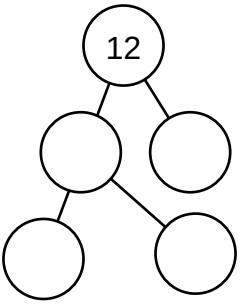


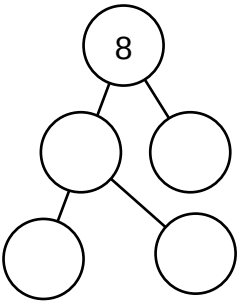




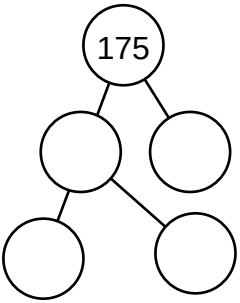


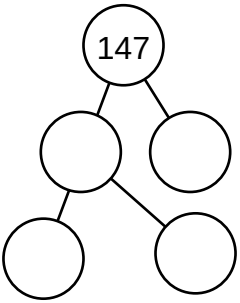


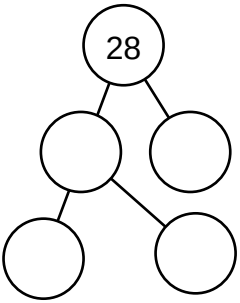


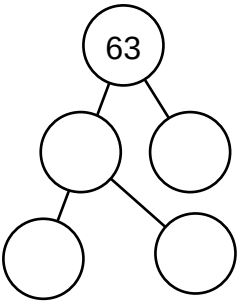


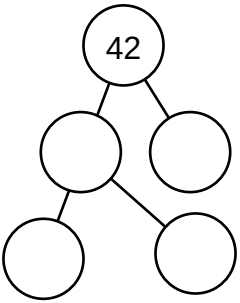
Complete the factor tree.

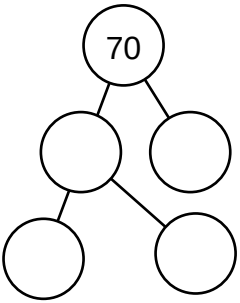


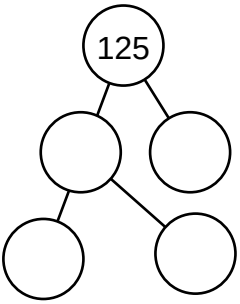


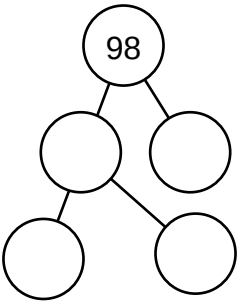


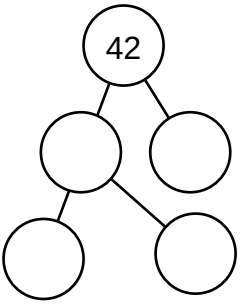




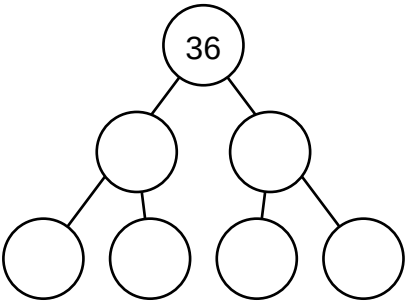


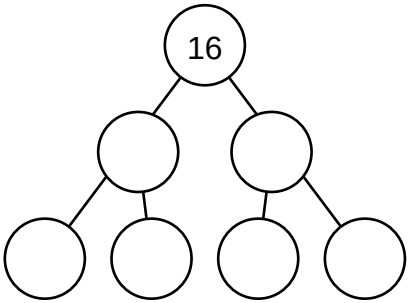


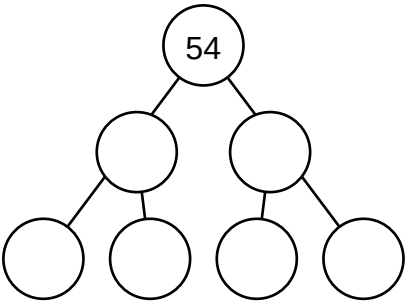


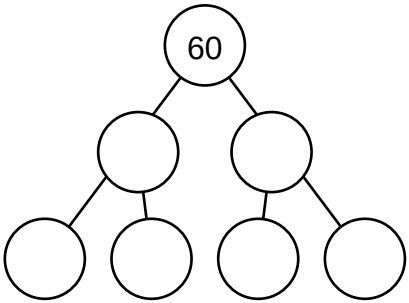


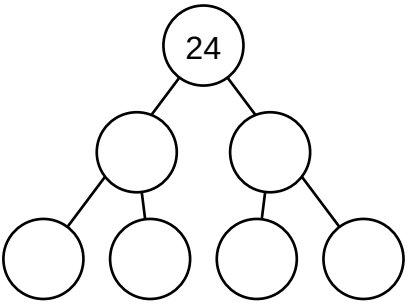
Complete the factor tree.

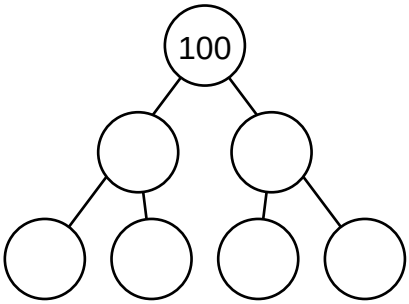




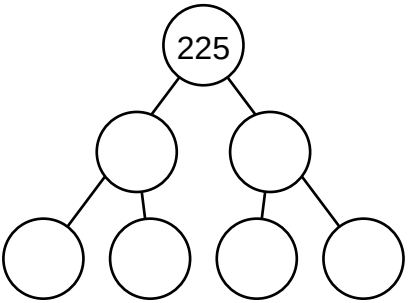


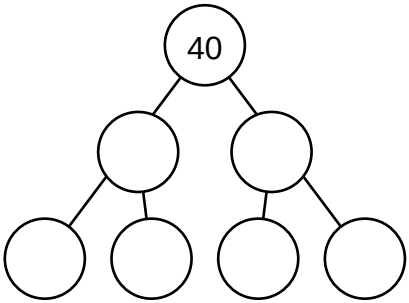


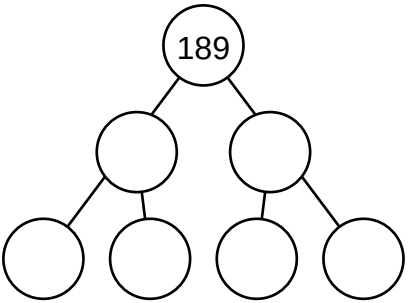


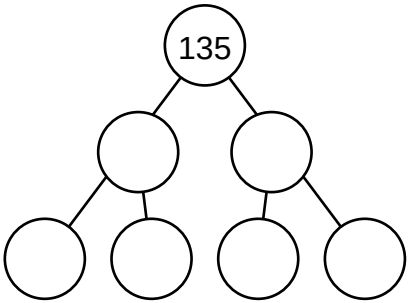


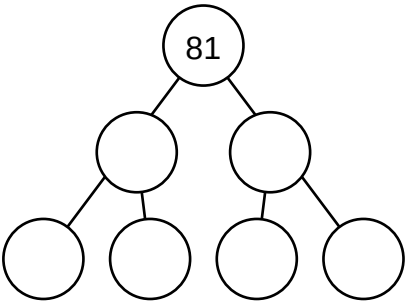
Complete the factor tree.

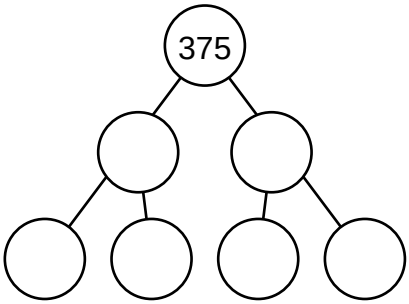












Least Common Multiple

1. Write 5 multiples of the below numbers

a) 43 :

b) 21 :

c) 17 :

d) 56:

e) 19:

f) 24:

2. Write 3 common multiples for the below set of numbers

a) 4, 8 :

b) 21, 7 :

c) 5, 6 :

d) 3, 5:

e) 2, 11:

f) 13, 3:

3. Find the LCM of the below pair of numbers.

a) 26, 6:

b) 12, 32:

c) 4, 7:

d) 6, 18:

e) 5, 7:

f) 7, 2 :

g) 20, 30:

h) 25, 20:

i) 15, 25:

j) 35, 14:

k) 27, 18:

l) 28, 49:

m) 50, 75 :

n) 21, 28:

o) 22, 33:

p) 65, 26:

q) 24, 18:

r) 48, 36:

s) 32, 18:

t) 14, 35:

u) 40, 32:

v) 90, 80:

w) 23, 69:

x) 50, 90 :

4. Find the LCM of the below set of numbers

a) 3, 6, 9 :

b) 4, 8, 12 :

c) 10, 15, 20 :

d) 6, 12, 18 :

e) 7, 14, 21 :

f) 10, 20, 30 :

g) 3, 8, 12 :

h) 4, 6, 9 :

i) 12, 16, 20:

j) 50, 150, 250:

k) 7, 70, 14:

l) 24, 36, 48:

m) 11, 13, 33 :

n) 42, 14, 10:

o) 6, 8, 7:

p) 49, 14, 7:

q) 8, 9, 12:

r) 20, 25, 30:

s) 2, 3, 4, 5:

t) 10, 20, 15, 30:

u) 6, 18, 30, 20:

v) 4, 9, 16, 36:

w) 55, 33, 30, 50:

x) 50, 90, 25, 45 :

Highest Common Factor

5. Write upto 5 factors for the below numbers

a) 100:

b) 60:

c) 64:

d) 120:

e) 1000:

f) 90:

6. Write 3 common factors for the below pair of numbers

a) 30, 90 :

b) 48, 64 :

c) 50, 75 :

d) 100, 150 :

e) 140, 210 :

f) 60, 48

7. Find the HCF of the below pair of numbers.

a) 26, 6:

b) 12, 32:

c) 4, 7:

d) 6, 18:

e) 5, 7:

f) 7, 2 :

g) 20, 30:

h) 25, 20:

i) 15, 25:

j) 35, 14:

k) 27, 18:

l) 28, 49:

m) 50, 75 :

n) 21, 28:

o) 22, 33:

p) 65, 26:

q) 24, 18:

r) 48, 36:

s) 32, 18:

t) 14, 35:

u) 40, 32:

v) 90, 80:

w) 23, 69:

x) 50, 90 :

8. Find the HCF of the below set of numbers

a) 3, 6, 9 :

b) 4, 8, 12 :

c) 10, 15, 20 :

d) 6, 12, 18 :

e) 7, 14, 21 :

f) 10, 20, 30 :

g) 3, 8, 12 :

h) 4, 6, 9 :

i) 12, 16, 20:

j) 50, 150, 250:

k) 7, 70, 14:

l) 24, 36, 48:

m) 11, 13, 33 :

n) 42, 14, 10:

o) 6, 8, 7:

p) 49, 14, 7:

q) 8, 9, 12:

r) 20, 25, 30:

s) 2, 3, 4, 5:

t) 10, 20, 15, 30:

u) 6, 18, 30, 20:

v) 4, 9, 16, 36:

w) 55, 33, 30, 50:

x) 50, 90, 25, 45 :

Worksheet

1. Write the first 10 natural numbers.

2. Write the first 5 whole numbers.

3. Write three integers greater than 5.

4. Write two rational numbers and two irrational numbers.

5. Find the factors of 18.

6. Write the first 5 multiples of 7.

7. Identify whether 29 is prime or composite.

8. Check if 9 and 16 are co-prime.

9. Classify the following as odd or even: 45, 28, 99, 100.

10. Find the LCM and HCF of 15 and 20.

11. A shopkeeper has 120 apples and 150 oranges. He wants to pack them into boxes such that each box contains the same number of fruits and no fruit is left over. What is the greatest number of fruits that can be packed in each box? (Hint: Find HCF)

12. Two bells ring together at 8:00 AM. The first bell rings every 24 minutes and the second every 36 minutes. At what time will they ring together again? (Hint: Find LCM)

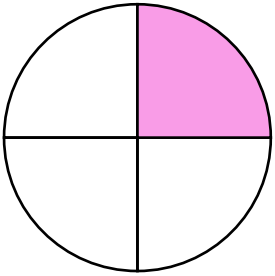
13. The sum of two numbers is 60 and their HCF is 12. Find the numbers if they are co-prime.

14. Write all prime numbers between 50 and 100 and classify them as of the form 6n+1 or 6n-1.

15. A number is divisible by both 2 and 3 but not by 4. Write the first five such numbers.

FRACTIONS

Write the fraction of the filled parts of the below images.



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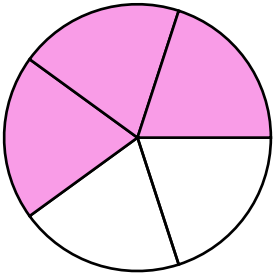

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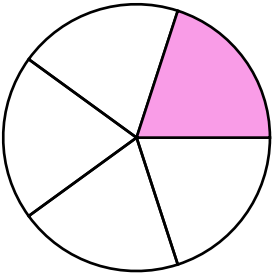

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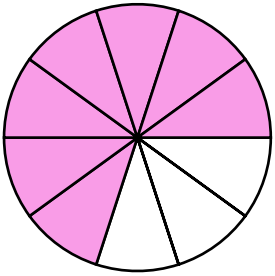

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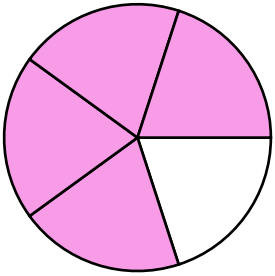

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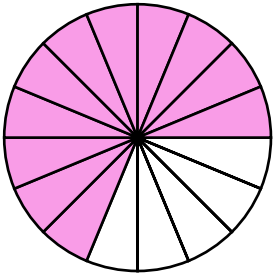

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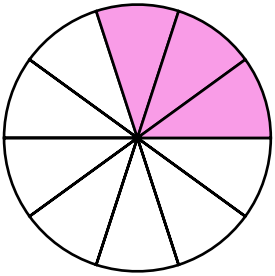

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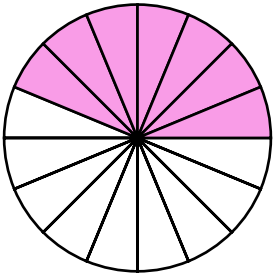

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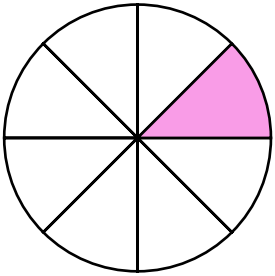
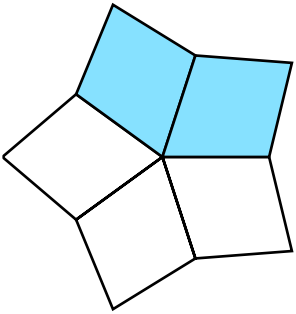


Write the fraction of the filled parts of the below images.



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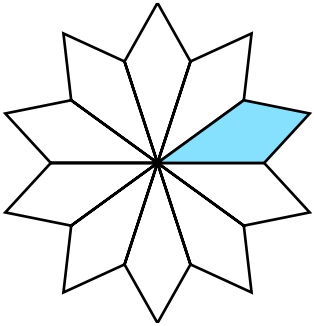

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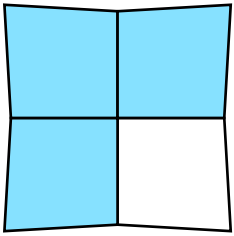

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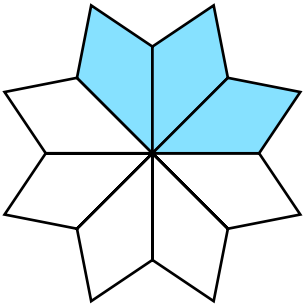

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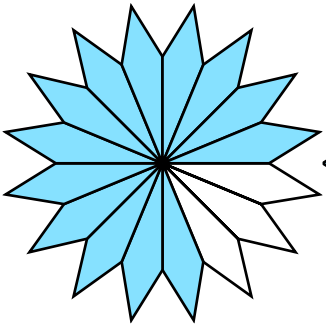

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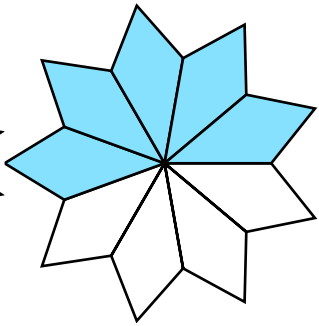

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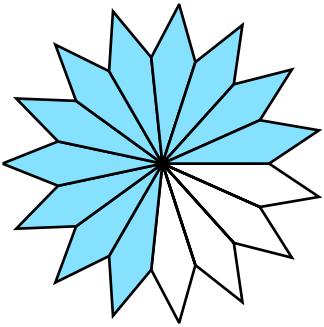

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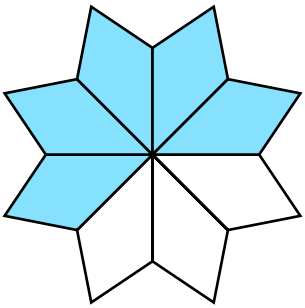

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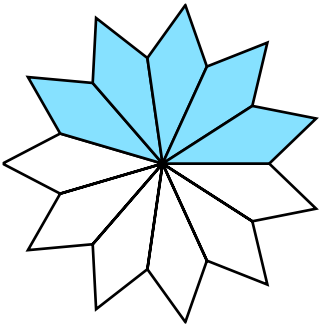


Convert the given improper fraction to mixed fraction.

1) $\frac{12}{9}$ =

2) $\frac{8}{3}$ =

3) $\frac{9}{2}$ =

4) $\frac{16}{5}$ =

5) $\frac{22}{8}$ =

6) $\frac{19}{9}$ =

7) $\frac{43}{10}$ =

8) $\frac{3}{2}$ =

9) $\frac{17}{9}$ =

10) $\frac{32}{7}$ =

11) $\frac{9}{2}$ =

12) $\frac{10}{6}$ =

13) $\frac{25}{6}$ =

14) $\frac{4}{3}$ =

15) $\frac{12}{8}$ =

16) $\frac{15}{4}$ =

17) $\frac{9}{2}$ =

18) $\frac{6}{5}$ =

19) $\frac{46}{10}$ =

20) $\frac{9}{6}$ =

21) $\frac{20}{8}$ =

22) $\frac{7}{2}$ =

23) $\frac{26}{10}$ =

24) $\frac{15}{4}$ =

25) $\frac{13}{5}$ =

26) $\frac{17}{8}$ =

27) $\frac{8}{5}$ =

28) $\frac{35}{8}$ =

29) $\frac{12}{8}$ =

Convert the given mixed fraction to improper fraction.

1) $4\frac{3}{5} =$

2) $2\frac{3}{7} =$

3) $3\frac{2}{3} =$

4) $2\frac{1}{4} =$

5) $3\frac{4}{7} =$

6) $1\frac{1}{6} =$

7) $2\frac{1}{2} =$

8) $4\frac{1}{9} =$

9) $2\frac{2}{3} =$

10) $4\frac{2}{4} =$

11) $1\frac{4}{6} =$

12) $3\frac{1}{3} =$

13) $3\frac{1}{2} =$

14) $2\frac{1}{3} =$

15) $4\frac{1}{3} =$

16) $3\frac{1}{2} =$

17) $1\frac{1}{5} =$

18) $2\frac{1}{2} =$

19) $2\frac{8}{10} =$

20) $4\frac{1}{3} =$

21) $3\frac{1}{2} =$

22) $4\frac{1}{2} =$

23) $4\frac{2}{5} =$

24) $4\frac{5}{6} =$

25) $2\frac{2}{3} =$

26) $4\frac{4}{7} =$

27) $1\frac{5}{7} =$

28) $1\frac{1}{2} =$

29) $1\frac{1}{3} =$

Simplify the fractions

1) $\frac{16}{20} =$

2) $\frac{30}{35} =$

3) $\frac{3}{9} =$

4) $\frac{8}{16} =$

5) $\frac{40}{55} =$

6) $\frac{7}{14} =$

7) $\frac{10}{20} =$

8) $\frac{10}{25} =$

9) $\frac{2}{10} =$

10) $\frac{4}{12} =$

11) $\frac{14}{21} =$

12) $\frac{40}{50} =$

13) $\frac{7}{35} =$

14) $\frac{20}{30} =$

15) $\frac{7}{14} =$

16) $\frac{12}{14} =$

17) $\frac{16}{44} =$

18) $\frac{3}{6} =$

19) $\frac{28}{44} =$

20) $\frac{15}{21} =$

21) $\frac{18}{27} =$

22) $\frac{6}{22} =$

23) $\frac{40}{56} =$

24) $\frac{5}{10} =$

25) $\frac{2}{10} =$

26) $\frac{6}{30} =$

27) $\frac{8}{88} =$

28) $\frac{14}{21} =$

29) $\frac{10}{20} =$

Write the missing number in the equivalent fractions.

1) $\frac{1}{\quad} = \frac{10}{20}$

2) $\frac{\quad}{2} = \frac{10}{20}$

3) $\frac{5}{11} = \frac{50}{\quad}$

4) $\frac{2}{3} = \frac{12}{\quad}$

5) $\frac{\quad}{7} = \frac{25}{35}$

6) $\frac{1}{3} = \frac{\quad}{9}$

7) $\frac{1}{2} = \frac{9}{\quad}$

8) $\frac{\quad}{2} = \frac{10}{20}$

9) $\frac{\quad}{2} = \frac{8}{16}$

10) $\frac{7}{11} = \frac{35}{\quad}$

11) $\frac{1}{\quad} = \frac{5}{25}$

12) $\frac{5}{7} = \frac{\quad}{70}$

13) $\frac{1}{2} = \frac{7}{\quad}$

14) $\frac{4}{7} = \frac{\quad}{35}$

15) $\frac{2}{7} = \frac{\quad}{14}$

16) $\frac{1}{3} = \frac{\quad}{6}$

17) $\frac{1}{5} = \frac{8}{\quad}$

18) $\frac{1}{5} = \frac{3}{\quad}$

19) $\frac{\quad}{7} = \frac{35}{49}$

20) $\frac{2}{7} = \frac{\quad}{35}$

21) $\frac{1}{\quad} = \frac{10}{20}$

22) $\frac{1}{11} = \frac{9}{\quad}$

23) $\frac{10}{11} = \frac{\quad}{66}$

24) $\frac{2}{3} = \frac{18}{\quad}$

25) $\frac{1}{2} = \frac{4}{\quad}$

26) $\frac{1}{2} = \frac{\quad}{4}$

27) $\frac{3}{\quad} = \frac{12}{44}$

28) $\frac{1}{2} = \frac{\quad}{20}$

29) $\frac{\quad}{11} = \frac{3}{33}$

Put the right sign (<, > , =) between the fractions.

1) $\frac{1}{4}$ ___ $\frac{3}{4}$

2) $\frac{2}{3}$ ___ $\frac{1}{3}$

3) $\frac{7}{9}$ ___ $\frac{5}{9}$

4) $\frac{2}{7}$ ___ $\frac{5}{7}$

5) $\frac{6}{11}$ ___ $\frac{5}{11}$

6) $\frac{1}{4}$ ___ $\frac{1}{3}$

7) $\frac{9}{11}$ ___ $\frac{9}{13}$

8) $\frac{7}{15}$ ___ $\frac{7}{19}$

9) $\frac{6}{13}$ ___ $\frac{6}{11}$

10) $\frac{2}{7}$ ___ $\frac{2}{9}$

11) $\frac{1}{2}$ ___ $\frac{3}{4}$

12) $\frac{1}{2}$ ___ $\frac{3}{8}$

13) $\frac{1}{2}$ ___ $\frac{11}{20}$

14) $\frac{1}{2}$ ___ $\frac{6}{12}$

15) $\frac{1}{2}$ ___ $\frac{4}{8}$

16) $\frac{2}{3}$ ___ $\frac{6}{9}$

17) $\frac{2}{3}$ ___ $\frac{3}{6}$

18) $\frac{1}{4}$ ___ $\frac{2}{9}$

19) $\frac{1}{4}$ ___ $\frac{3}{11}$

20) $\frac{1}{4}$ ___ $\frac{4}{15}$

21) $\frac{1}{5}$ ___ $\frac{3}{10}$

22) $\frac{1}{5}$ ___ $\frac{2}{15}$

23) $\frac{1}{5}$ ___ $\frac{5}{25}$

24) $\frac{2}{5}$ ___ $\frac{20}{50}$

25) $\frac{2}{5}$ ___ $\frac{10}{20}$

26) $\frac{7}{10}$ ___ $\frac{14}{20}$

27) $\frac{9}{10}$ ___ $\frac{90}{99}$

28) $\frac{1}{25}$ ___ $\frac{3}{50}$

29) $\frac{2}{10}$ ___ $\frac{1}{5}$

Circle the smallest fraction

1) $\frac{1}{5}, \frac{1}{2}, \frac{1}{3}, \frac{1}{4}$

2) $\frac{2}{9}, \frac{5}{9}, \frac{4}{9}, \frac{3}{9}$

3) $\frac{4}{11}, \frac{10}{11}, \frac{7}{11}, \frac{9}{11}$

4) $\frac{2}{7}, \frac{5}{7}, \frac{3}{7}, \frac{4}{7}$

5) $\frac{2}{13}, \frac{11}{13}, \frac{10}{13}, \frac{4}{13}$

6) $\frac{4}{13}, \frac{4}{7}, \frac{4}{11}, \frac{4}{9}$

7) $\frac{13}{25}, \frac{13}{15}, \frac{13}{20}, \frac{13}{18}$

8) $\frac{7}{20}, \frac{7}{10}, \frac{7}{15}, \frac{7}{11}$

9) $\frac{5}{9}, \frac{5}{6}, \frac{5}{7}, \frac{5}{8}$

10) $\frac{11}{30}, \frac{11}{15}, \frac{11}{20}, \frac{11}{23}$

11) $\frac{1}{3}, \frac{1}{2}, \frac{3}{4}, \frac{4}{5}$

12) $\frac{1}{10}, \frac{1}{7}, \frac{2}{5}, \frac{4}{5}$

13) $\frac{4}{9}, \frac{1}{2}, \frac{7}{9}, \frac{9}{10}$

14) $\frac{5}{11}, \frac{2}{3}, \frac{6}{11}, \frac{9}{11}$

15) $\frac{2}{5}, \frac{4}{5}, \frac{3}{5}, \frac{8}{9}$

16) $\frac{3}{10}, \frac{1}{10}, \frac{4}{10}, \frac{7}{10}$

17) $\frac{4}{7}, \frac{3}{7}, \frac{6}{7}, \frac{2}{7}$

18) $\frac{2}{5}, \frac{3}{10}, \frac{4}{15}, \frac{5}{20}$

19) $\frac{1}{2}, \frac{11}{20}, \frac{29}{30}, \frac{33}{40}$

Circle the biggest fraction

1) $\frac{1}{5}, \frac{1}{2}, \frac{1}{3}, \frac{1}{4}$

2) $\frac{2}{9}, \frac{5}{9}, \frac{4}{9}, \frac{3}{9}$

3) $\frac{4}{11}, \frac{10}{11}, \frac{7}{11}, \frac{9}{11}$

4) $\frac{2}{7}, \frac{5}{7}, \frac{3}{7}, \frac{4}{7}$

5) $\frac{2}{13}, \frac{11}{13}, \frac{10}{13}, \frac{4}{13}$

6) $\frac{4}{13}, \frac{4}{7}, \frac{4}{11}, \frac{4}{9}$

7) $\frac{13}{25}, \frac{13}{15}, \frac{13}{20}, \frac{13}{18}$

8) $\frac{7}{20}, \frac{7}{10}, \frac{7}{15}, \frac{7}{11}$

9) $\frac{5}{9}, \frac{5}{6}, \frac{5}{7}, \frac{5}{8}$

10) $\frac{11}{30}, \frac{11}{15}, \frac{11}{20}, \frac{11}{23}$

11) $\frac{1}{3}, \frac{1}{2}, \frac{3}{4}, \frac{4}{5}$

12) $\frac{1}{10}, \frac{1}{7}, \frac{2}{5}, \frac{4}{5}$

13) $\frac{4}{9}, \frac{1}{2}, \frac{7}{9}, \frac{9}{10}$

14) $\frac{5}{11}, \frac{2}{3}, \frac{6}{11}, \frac{9}{11}$

15) $\frac{2}{5}, \frac{4}{5}, \frac{3}{5}, \frac{8}{9}$

16) $\frac{3}{10}, \frac{1}{10}, \frac{4}{10}, \frac{7}{10}$

17) $\frac{4}{7}, \frac{3}{7}, \frac{6}{7}, \frac{2}{7}$

18) $\frac{2}{5}, \frac{3}{10}, \frac{4}{15}, \frac{5}{20}$

19) $\frac{1}{2}, \frac{11}{20}, \frac{29}{30}, \frac{33}{40}$

Rewrite the fractions in ascending order

1) $\frac{4}{13}, \frac{4}{7}, \frac{4}{11}, \frac{4}{9}$:

2) $\frac{13}{25}, \frac{13}{15}, \frac{13}{20}, \frac{13}{18}$:

3) $\frac{7}{20}, \frac{7}{10}, \frac{7}{15}, \frac{7}{11}$:

4) $\frac{5}{9}, \frac{5}{6}, \frac{5}{7}, \frac{5}{8}$:

5) $\frac{11}{30}, \frac{11}{15}, \frac{11}{20}, \frac{11}{23}$:

6) $\frac{1}{3}, \frac{1}{2}, \frac{3}{4}, \frac{4}{5}$:

7) $\frac{1}{10}, \frac{1}{7}, \frac{2}{5}, \frac{4}{5}$:

8) $\frac{4}{9}, \frac{1}{2}, \frac{7}{9}, \frac{9}{10}$:

9) $\frac{5}{11}, \frac{2}{3}, \frac{6}{11}, \frac{9}{11}$:

10) $\frac{2}{5}, \frac{4}{5}, \frac{3}{5}, \frac{8}{9}$:

Rewrite the fractions in descending order

1) $\frac{1}{5}, \frac{1}{2}, \frac{1}{3}, \frac{1}{4}$:

2) $\frac{2}{9}, \frac{5}{9}, \frac{4}{9}, \frac{3}{9}$:

3) $\frac{4}{11}, \frac{10}{11}, \frac{7}{11}, \frac{9}{11}$:

4) $\frac{2}{7}, \frac{5}{7}, \frac{3}{7}, \frac{4}{7}$:

5) $\frac{2}{13}, \frac{11}{13}, \frac{10}{13}, \frac{4}{13}$:

6) $\frac{2}{5}, \frac{4}{5}, \frac{3}{5}, \frac{8}{9}$:

7) $\frac{3}{10}, \frac{1}{10}, \frac{4}{10}, \frac{7}{10}$:

8) $\frac{4}{7}, \frac{3}{7}, \frac{6}{7}, \frac{2}{7}$:

9) $\frac{2}{5}, \frac{3}{10}, \frac{4}{15}, \frac{5}{20}$:

10) $\frac{1}{2}, \frac{11}{20}, \frac{29}{30}, \frac{33}{40}$:

Match Equal Values

0.7	$\frac{9}{10}$
0.5	$\frac{7}{10}$
0.2	$\frac{1}{2}$
0.4	$\frac{1}{5}$
0.9	$\frac{2}{5}$

0.7	$\frac{1}{4} + \frac{1}{4}$
0.5	$\frac{3}{10} + \frac{4}{10}$
0.2	$\frac{1}{10} + \frac{1}{10}$
0.4	$\frac{2}{10} + \frac{2}{10}$
0.9	$\frac{5}{10} + \frac{4}{10}$

$\frac{2}{4}$	$\frac{1}{3}$
$\frac{2}{8}$	$\frac{3}{4}$
$\frac{2}{6}$	$\frac{1}{5}$
$\frac{2}{10}$	$\frac{1}{4}$
$\frac{6}{8}$	$\frac{1}{2}$

$1\frac{1}{2}$	$\frac{9}{2}$
$2\frac{1}{2}$	$\frac{7}{2}$
$3\frac{1}{2}$	$\frac{11}{2}$
$4\frac{1}{2}$	$\frac{3}{2}$
$5\frac{1}{2}$	$\frac{5}{2}$

Mixed Fraction

Convert the given improper fraction to mixed fraction.

1) $\frac{29}{7}$ = ____	2) $\frac{22}{6}$ = ____	3) $\frac{19}{9}$ = ____	4) $\frac{17}{4}$ = ____
5) $\frac{20}{8}$ = ____	6) $\frac{18}{5}$ = ____	7) $\frac{20}{9}$ = ____	8) $\frac{17}{4}$ = ____
9) $\frac{25}{10}$ = ____	10) $\frac{42}{10}$ = ____	11) $\frac{8}{7}$ = ____	12) $\frac{9}{6}$ = ____
13) $\frac{8}{3}$ = ____	14) $\frac{23}{9}$ = ____	15) $\frac{17}{5}$ = ____	16) $\frac{13}{9}$ = ____
17) $\frac{19}{4}$ = ____	18) $\frac{34}{10}$ = ____	19) $\frac{13}{5}$ = ____	20) $\frac{23}{7}$ = ____
21) $\frac{28}{6}$ = ____	22) $\frac{10}{3}$ = ____	23) $\frac{27}{6}$ = ____	24) $\frac{25}{9}$ = ____
25) $\frac{22}{10}$ = ____	26) $\frac{9}{5}$ = ____	27) $\frac{17}{8}$ = ____	28) $\frac{5}{3}$ = ____
29) $\frac{18}{5}$ = ____	30) $\frac{18}{4}$ = ____	31) $\frac{20}{8}$ = ____	32) $\frac{9}{2}$ = ____
33) $\frac{11}{4}$ = ____	34) $\frac{13}{4}$ = ____	35) $\frac{18}{5}$ = ____	36) $\frac{22}{9}$ = ____
37) $\frac{9}{2}$ = ____	38) $\frac{3}{2}$ = ____	39) $\frac{24}{7}$ = ____	40) $\frac{22}{8}$ = ____
41) $\frac{23}{8}$ = ____	42) $\frac{9}{2}$ = ____	43) $\frac{10}{3}$ = ____	44) $\frac{34}{8}$ = ____
45) $\frac{8}{7}$ = ____	46) $\frac{14}{6}$ = ____	47) $\frac{34}{9}$ = ____	48) $\frac{3}{2}$ = ____
49) $\frac{15}{4}$ = ____	50) $\frac{6}{4}$ = ____	51) $\frac{9}{7}$ = ____	52) $\frac{35}{8}$ = ____
53) $\frac{19}{5}$ = ____	54) $\frac{7}{2}$ = ____	55) $\frac{19}{9}$ = ____	56) $\frac{38}{9}$ = ____

Improper Fraction

Convert the given improper fraction to mixed fraction.

1) $2\frac{1}{2} =$ ____	2) $3\frac{8}{10} =$ ____	3) $3\frac{1}{7} =$ ____	4) $4\frac{2}{8} =$ ____
5) $2\frac{7}{8} =$ ____	6) $3\frac{2}{3} =$ ____	7) $4\frac{2}{6} =$ ____	8) $4\frac{6}{8} =$ ____
9) $1\frac{1}{2} =$ ____	10) $2\frac{1}{2} =$ ____	11) $1\frac{6}{7} =$ ____	12) $4\frac{2}{3} =$ ____
13) $3\frac{1}{2} =$ ____	14) $3\frac{2}{7} =$ ____	15) $2\frac{1}{4} =$ ____	16) $4\frac{3}{7} =$ ____
17) $4\frac{5}{9} =$ ____	18) $4\frac{1}{2} =$ ____	19) $4\frac{1}{10} =$ ____	20) $1\frac{1}{8} =$ ____
21) $4\frac{4}{5} =$ ____	22) $1\frac{1}{9} =$ ____	23) $3\frac{1}{2} =$ ____	24) $4\frac{2}{6} =$ ____
25) $1\frac{6}{8} =$ ____	26) $3\frac{3}{10} =$ ____	27) $4\frac{1}{7} =$ ____	28) $4\frac{1}{4} =$ ____
29) $4\frac{1}{7} =$ ____	30) $3\frac{2}{3} =$ ____	31) $1\frac{5}{9} =$ ____	32) $4\frac{2}{4} =$ ____
33) $2\frac{1}{4} =$ ____	34) $1\frac{3}{6} =$ ____	35) $4\frac{1}{3} =$ ____	36) $4\frac{4}{9} =$ ____
37) $2\frac{3}{10} =$ ____	38) $2\frac{1}{3} =$ ____	39) $1\frac{1}{9} =$ ____	40) $2\frac{1}{5} =$ ____
41) $2\frac{1}{2} =$ ____	42) $4\frac{2}{6} =$ ____	43) $4\frac{4}{6} =$ ____	44) $4\frac{4}{5} =$ ____
45) $1\frac{3}{8} =$ ____	46) $4\frac{5}{6} =$ ____	47) $1\frac{3}{5} =$ ____	48) $3\frac{4}{8} =$ ____
49) $1\frac{3}{4} =$ ____	50) $3\frac{3}{6} =$ ____	51) $2\frac{2}{6} =$ ____	52) $2\frac{2}{9} =$ ____
53) $1\frac{3}{10} =$ ____	54) $1\frac{5}{6} =$ ____	55) $4\frac{5}{6} =$ ____	56) $2\frac{2}{10} =$ ____

Simplify Fraction

Simplify the fraction by removing the common terms in the numerator and denominator.

1) $\frac{24}{40} = \_\_\_\_$
2) $\frac{4}{8} = \_\_\_\_$
3) $\frac{30}{55} = \_\_\_\_$
4) $\frac{10}{15} = \_\_\_\_$
5) $\frac{10}{70} = \_\_\_\_$
6) $\frac{9}{27} = \_\_\_\_$
7) $\frac{10}{30} = \_\_\_\_$
8) $\frac{20}{35} = \_\_\_\_$
9) $\frac{12}{14} = \_\_\_\_$
10) $\frac{15}{33} = \_\_\_\_$
11) $\frac{81}{99} = \_\_\_\_$
12) $\frac{6}{30} = \_\_\_\_$
13) $\frac{48}{88} = \_\_\_\_$
14) $\frac{7}{35} = \_\_\_\_$
15) $\frac{3}{9} = \_\_\_\_$
16) $\frac{6}{22} = \_\_\_\_$
17) $\frac{12}{30} = \_\_\_\_$
18) $\frac{32}{88} = \_\_\_\_$
19) $\frac{8}{24} = \_\_\_\_$
20) $\frac{2}{10} = \_\_\_\_$
21) $\frac{7}{77} = \_\_\_\_$
22) $\frac{8}{12} = \_\_\_\_$
23) $\frac{6}{18} = \_\_\_\_$
24) $\frac{20}{70} = \_\_\_\_$
25) $\frac{2}{22} = \_\_\_\_$
26) $\frac{6}{12} = \_\_\_\_$
27) $\frac{7}{14} = \_\_\_\_$
28) $\frac{18}{21} = \_\_\_\_$
29) $\frac{80}{88} = \_\_\_\_$
30) $\frac{10}{14} = \_\_\_\_$
31) $\frac{5}{10} = \_\_\_\_$
32) $\frac{9}{18} = \_\_\_\_$
33) $\frac{7}{21} = \_\_\_\_$
34) $\frac{40}{50} = \_\_\_\_$
35) $\frac{5}{15} = \_\_\_\_$
36) $\frac{40}{44} = \_\_\_\_$
37) $\frac{9}{45} = \_\_\_\_$
38) $\frac{8}{16} = \_\_\_\_$
39) $\frac{16}{88} = \_\_\_\_$
40) $\frac{5}{55} = \_\_\_\_$
41) $\frac{12}{20} = \_\_\_\_$
42) $\frac{2}{4} = \_\_\_\_$
43) $\frac{4}{6} = \_\_\_\_$
44) $\frac{63}{99} = \_\_\_\_$
45) $\frac{7}{49} = \_\_\_\_$
46) $\frac{6}{14} = \_\_\_\_$
47) $\frac{24}{28} = \_\_\_\_$
48) $\frac{10}{35} = \_\_\_\_$
49) $\frac{12}{15} = \_\_\_\_$
50) $\frac{20}{55} = \_\_\_\_$
51) $\frac{12}{28} = \_\_\_\_$
52) $\frac{21}{49} = \_\_\_\_$
53) $\frac{30}{42} = \_\_\_\_$
54) $\frac{16}{40} = \_\_\_\_$
55) $\frac{4}{10} = \_\_\_\_$
56) $\frac{9}{63} = \_\_\_\_$

Equal Fraction

Write the missing term in the equal fraction.

1) $\frac{1}{5} = \frac{3}{\quad}$
2) $\frac{1}{2} = \frac{7}{\quad}$
3) $\frac{2}{\quad} = \frac{14}{21}$
4) $\frac{2}{\quad} = \frac{6}{9}$
5) $\frac{8}{11} = \frac{40}{\quad}$
6) $\frac{\quad}{2} = \frac{8}{16}$
7) $\frac{3}{5} = \frac{\quad}{10}$
8) $\frac{10}{\quad} = \frac{50}{55}$
9) $\frac{3}{7} = \frac{18}{\quad}$
10) $\frac{4}{\quad} = \frac{36}{45}$
11) $\frac{\quad}{5} = \frac{24}{40}$
12) $\frac{8}{\quad} = \frac{24}{33}$
13) $\frac{\quad}{3} = \frac{14}{21}$
14) $\frac{5}{\quad} = \frac{15}{33}$
15) $\frac{2}{3} = \frac{10}{\quad}$
16) $\frac{4}{7} = \frac{\quad}{28}$
17) $\frac{3}{\quad} = \frac{6}{14}$
18) $\frac{10}{11} = \frac{80}{\quad}$
19) $\frac{3}{7} = \frac{6}{\quad}$
20) $\frac{\quad}{11} = \frac{27}{99}$
21) $\frac{1}{2} = \frac{\quad}{12}$
22) $\frac{1}{\quad} = \frac{10}{50}$
23) $\frac{1}{3} = \frac{4}{\quad}$
24) $\frac{1}{\quad} = \frac{9}{18}$
25) $\frac{1}{3} = \frac{\quad}{9}$
26) $\frac{7}{11} = \frac{14}{\quad}$
27) $\frac{\quad}{5} = \frac{6}{30}$
28) $\frac{2}{\quad} = \frac{10}{15}$
29) $\frac{1}{5} = \frac{\quad}{30}$
30) $\frac{\quad}{11} = \frac{48}{88}$
31) $\frac{1}{3} = \frac{\quad}{18}$
32) $\frac{2}{7} = \frac{8}{\quad}$
33) $\frac{4}{7} = \frac{20}{\quad}$
34) $\frac{1}{3} = \frac{\quad}{21}$
35) $\frac{\quad}{11} = \frac{16}{44}$
36) $\frac{2}{7} = \frac{14}{\quad}$
37) $\frac{1}{3} = \frac{5}{\quad}$
38) $\frac{1}{2} = \frac{\quad}{6}$
39) $\frac{\quad}{7} = \frac{9}{63}$
40) $\frac{6}{7} = \frac{24}{\quad}$
41) $\frac{1}{2} = \frac{3}{\quad}$
42) $\frac{1}{2} = \frac{\quad}{14}$
43) $\frac{1}{5} = \frac{\quad}{45}$
44) $\frac{4}{11} = \frac{\quad}{44}$
45) $\frac{2}{\quad} = \frac{16}{24}$
46) $\frac{1}{\quad} = \frac{10}{20}$
47) $\frac{\quad}{2} = \frac{4}{8}$
48) $\frac{\quad}{5} = \frac{7}{35}$
49) $\frac{4}{11} = \frac{12}{\quad}$
50) $\frac{\quad}{5} = \frac{16}{20}$
51) $\frac{1}{5} = \frac{\quad}{35}$
52) $\frac{1}{3} = \frac{3}{\quad}$
53) $\frac{1}{3} = \frac{\quad}{27}$
54) $\frac{1}{2} = \frac{\quad}{6}$
55) $\frac{\quad}{7} = \frac{18}{21}$
56) $\frac{2}{3} = \frac{20}{\quad}$

Decimal Equivalent

Write the decimal equivalent of the given fraction.

1) $\frac{10}{25}$ =	2) $\frac{3}{15}$ =	3) $\frac{18}{60}$ =	4) $\frac{4}{16}$ =
5) $\frac{4}{20}$ =	6) $\frac{12}{30}$ =	7) $\frac{12}{16}$ =	8) $\frac{21}{70}$ =
9) $\frac{5}{20}$ =	10) $\frac{14}{20}$ =	11) $\frac{15}{25}$ =	12) $\frac{15}{50}$ =
13) $\frac{24}{30}$ =	14) $\frac{27}{30}$ =	15) $\frac{2}{4}$ =	16) $\frac{6}{20}$ =
17) $\frac{14}{35}$ =	18) $\frac{9}{15}$ =	19) $\frac{20}{25}$ =	20) $\frac{6}{8}$ =
21) $\frac{2}{8}$ =	22) $\frac{16}{20}$ =	23) $\frac{63}{70}$ =	24) $\frac{12}{15}$ =
25) $\frac{8}{10}$ =	26) $\frac{36}{40}$ =	27) $\frac{28}{35}$ =	28) $\frac{7}{14}$ =
29) $\frac{28}{40}$ =	30) $\frac{54}{60}$ =	31) $\frac{18}{24}$ =	32) $\frac{49}{70}$ =
33) $\frac{21}{30}$ =	34) $\frac{6}{24}$ =	35) $\frac{21}{35}$ =	36) $\frac{3}{6}$ =
37) $\frac{21}{28}$ =	38) $\frac{8}{20}$ =	39) $\frac{5}{10}$ =	40) $\frac{7}{35}$ =
41) $\frac{5}{25}$ =	42) $\frac{9}{30}$ =	43) $\frac{2}{10}$ =	44) $\frac{18}{30}$ =
45) $\frac{6}{30}$ =	46) $\frac{45}{50}$ =	47) $\frac{4}{10}$ =	48) $\frac{6}{12}$ =
49) $\frac{6}{15}$ =	50) $\frac{12}{20}$ =	51) $\frac{7}{28}$ =	52) $\frac{15}{20}$ =
53) $\frac{4}{8}$ =	54) $\frac{42}{60}$ =	55) $\frac{9}{12}$ =	56) $\frac{35}{50}$ =

Fraction Equivalent

Write the fraction equivalent of the given decimal number.

1) 0.38 = _____
2) 0.15 = _____
3) 0.9 = _____
4) 0.95 = _____
5) 0.12 = _____
6) 0.875 = _____
7) 0.375 = _____
8) 0.26 = _____
9) 0.49 = _____
10) 0.36 = _____
11) 0.3 = _____
12) 0.89 = _____
13) 0.125 = _____
14) 0.625 = _____
15) 0.01 = _____
16) 0.68 = _____
17) 0.79 = _____
18) 0.98 = _____
19) 0.43 = _____
20) 0.91 = _____
21) 0.54 = _____
22) 0.08 = _____
23) 0.41 = _____
24) 0.29 = _____
25) 0.8 = _____
26) 0.46 = _____
27) 0.67 = _____
28) 0.16 = _____
29) 0.92 = _____
30) 0.93 = _____
31) 0.99 = _____
32) 0.57 = _____
33) 0.85 = _____
34) 0.1 = _____
35) 0.7 = _____
36) 0.86 = _____
37) 0.75 = _____
38) 0.35 = _____
39) 0.23 = _____
40) 0.82 = _____
41) 0.4 = _____
42) 0.63 = _____
43) 0.87 = _____
44) 0.88 = _____
45) 0.32 = _____
46) 0.5 = _____
47) 0.72 = _____
48) 0.47 = _____
49) 0.2 = _____
50) 0.39 = _____
51) 0.6 = _____
52) 0.25 = _____
53) 0.66 = _____
54) 0.19 = _____
55) 0.33 = _____
56) 0.48 = _____

Fraction Addition

Addition of like fraction.

1) $\frac{6}{14} + \frac{7}{14} =$ ____

2) $\frac{1}{11} + \frac{7}{11} =$ ____

3) $\frac{3}{14} + \frac{2}{14} =$ ____

4) $\frac{11}{18} + \frac{2}{18} =$ ____

5) $\frac{5}{10} + \frac{5}{10} =$ ____

6) $\frac{6}{12} + \frac{3}{12} =$ ____

7) $\frac{1}{6} + \frac{3}{6} =$ ____

8) $\frac{2}{10} + \frac{2}{10} =$ ____

9) $\frac{8}{18} + \frac{8}{18} =$ ____

10) $\frac{2}{6} + \frac{2}{6} =$ ____

11) $\frac{5}{19} + \frac{5}{19} =$ ____

12) $\frac{4}{8} + \frac{3}{8} =$ ____

13) $\frac{3}{20} + \frac{3}{20} =$ ____

14) $\frac{8}{20} + \frac{2}{20} =$ ____

15) $\frac{2}{15} + \frac{8}{15} =$ ____

16) $\frac{4}{8} + \frac{2}{8} =$ ____

17) $\frac{6}{20} + \frac{8}{20} =$ ____

18) $\frac{1}{13} + \frac{4}{13} =$ ____

19) $\frac{8}{17} + \frac{9}{17} =$ ____

20) $\frac{1}{8} + \frac{5}{8} =$ ____

21) $\frac{3}{12} + \frac{3}{12} =$ ____

22) $\frac{8}{11} + \frac{2}{11} =$ ____

23) $\frac{2}{18} + \frac{4}{18} =$ ____

24) $\frac{4}{18} + \frac{12}{18} =$ ____

25) $\frac{2}{6} + \frac{3}{6} =$ ____

26) $\frac{2}{20} + \frac{17}{20} =$ ____

27) $\frac{5}{10} + \frac{2}{10} =$ ____

28) $\frac{4}{13} + \frac{3}{13} =$ ____

29) $\frac{1}{13} + \frac{8}{13} =$ ____

30) $\frac{3}{17} + \frac{14}{17} =$ ____

31) $\frac{7}{11} + \frac{2}{11} =$ ____

32) $\frac{1}{14} + \frac{3}{14} =$ ____

33) $\frac{3}{13} + \frac{5}{13} =$ ____

34) $\frac{4}{20} + \frac{15}{20} =$ ____

35) $\frac{2}{11} + \frac{8}{11} =$ ____

36) $\frac{1}{9} + \frac{5}{9} =$ ____

37) $\frac{3}{13} + \frac{2}{13} =$ ____

38) $\frac{10}{19} + \frac{4}{19} =$ ____

39) $\frac{1}{8} + \frac{7}{8} =$ ____

40) $\frac{1}{13} + \frac{5}{13} =$ ____

41) $\frac{2}{12} + \frac{9}{12} =$ ____

42) $\frac{1}{13} + \frac{6}{13} =$ ____

Fraction Subtraction

Subtraction of like fraction.

1) $\frac{6}{8} - \frac{2}{8} =$ ____

2) $\frac{7}{12} - \frac{3}{12} =$ ____

3) $\frac{8}{15} - \frac{7}{15} =$ ____

4) $\frac{8}{17} - \frac{3}{17} =$ ____

5) $\frac{13}{18} - \frac{12}{18} =$ ____

6) $\frac{10}{11} - \frac{10}{11} =$ ____

7) $\frac{11}{20} - \frac{6}{20} =$ ____

8) $\frac{3}{6} - \frac{2}{6} =$ ____

9) $\frac{3}{6} - \frac{3}{6} =$ ____

10) $\frac{5}{6} - \frac{2}{6} =$ ____

11) $\frac{3}{7} - \frac{2}{7} =$ ____

12) $\frac{6}{8} - \frac{5}{8} =$ ____

13) $\frac{13}{18} - \frac{8}{18} =$ ____

14) $\frac{5}{6} - \frac{5}{6} =$ ____

15) $\frac{3}{6} - \frac{3}{6} =$ ____

16) $\frac{7}{8} - \frac{4}{8} =$ ____

17) $\frac{13}{20} - \frac{3}{20} =$ ____

18) $\frac{18}{19} - \frac{13}{19} =$ ____

19) $\frac{3}{6} - \frac{2}{6} =$ ____

20) $\frac{10}{16} - \frac{3}{16} =$ ____

21) $\frac{14}{19} - \frac{2}{19} =$ ____

22) $\frac{4}{6} - \frac{2}{6} =$ ____

23) $\frac{10}{11} - \frac{5}{11} =$ ____

24) $\frac{5}{7} - \frac{2}{7} =$ ____

25) $\frac{6}{19} - \frac{4}{19} =$ ____

26) $\frac{16}{17} - \frac{7}{17} =$ ____

27) $\frac{14}{17} - \frac{4}{17} =$ ____

28) $\frac{4}{8} - \frac{3}{8} =$ ____

29) $\frac{8}{11} - \frac{3}{11} =$ ____

30) $\frac{17}{19} - \frac{16}{19} =$ ____

31) $\frac{10}{14} - \frac{6}{14} =$ ____

32) $\frac{11}{13} - \frac{10}{13} =$ ____

33) $\frac{10}{11} - \frac{9}{11} =$ ____

34) $\frac{9}{13} - \frac{2}{13} =$ ____

35) $\frac{12}{20} - \frac{11}{20} =$ ____

36) $\frac{13}{17} - \frac{10}{17} =$ ____

37) $\frac{8}{11} - \frac{4}{11} =$ ____

38) $\frac{7}{8} - \frac{4}{8} =$ ____

39) $\frac{12}{18} - \frac{12}{18} =$ ____

40) $\frac{13}{16} - \frac{5}{16} =$ ____

41) $\frac{7}{9} - \frac{4}{9} =$ ____

42) $\frac{14}{16} - \frac{7}{16} =$ ____

Unlike Fraction - Addition

Addition of unlike fraction.

1) $\frac{10}{15} + \frac{2}{3} =$ ____

2) $\frac{2}{3} + \frac{10}{15} =$ ____

3) $\frac{2}{4} + \frac{4}{8} =$ ____

4) $\frac{6}{9} + \frac{2}{3} =$ ____

5) $\frac{9}{12} + \frac{3}{4} =$ ____

6) $\frac{1}{2} + \frac{4}{8} =$ ____

7) $\frac{4}{8} + \frac{1}{2} =$ ____

8) $\frac{12}{15} + \frac{2}{5} =$ ____

9) $\frac{16}{20} + \frac{2}{5} =$ ____

10) $\frac{2}{4} + \frac{1}{2} =$ ____

11) $\frac{2}{3} + \frac{10}{15} =$ ____

12) $\frac{4}{8} + \frac{2}{4} =$ ____

13) $\frac{10}{15} + \frac{2}{3} =$ ____

14) $\frac{2}{4} + \frac{6}{12} =$ ____

15) $\frac{2}{5} + \frac{8}{20} =$ ____

16) $\frac{2}{3} + \frac{6}{9} =$ ____

17) $\frac{4}{8} + \frac{3}{4} =$ ____

18) $\frac{6}{12} + \frac{3}{4} =$ ____

19) $\frac{6}{8} + \frac{2}{4} =$ ____

20) $\frac{4}{6} + \frac{2}{3} =$ ____

21) $\frac{12}{16} + \frac{2}{4} =$ ____

22) $\frac{2}{4} + \frac{15}{20} =$ ____

23) $\frac{4}{8} + \frac{1}{2} =$ ____

24) $\frac{2}{3} + \frac{6}{9} =$ ____

25) $\frac{6}{9} + \frac{2}{3} =$ ____

26) $\frac{1}{2} + \frac{5}{10} =$ ____

27) $\frac{2}{3} + \frac{4}{6} =$ ____

28) $\frac{12}{15} + \frac{3}{5} =$ ____

29) $\frac{10}{15} + \frac{2}{3} =$ ____

30) $\frac{3}{5} + \frac{6}{10} =$ ____

31) $\frac{1}{2} + \frac{2}{4} =$ ____

32) $\frac{8}{12} + \frac{2}{3} =$ ____

33) $\frac{2}{5} + \frac{16}{20} =$ ____

34) $\frac{2}{4} + \frac{15}{20} =$ ____

35) $\frac{5}{10} + \frac{1}{2} =$ ____

36) $\frac{2}{4} + \frac{10}{20} =$ ____

37) $\frac{2}{3} + \frac{6}{9} =$ ____

38) $\frac{4}{8} + \frac{3}{4} =$ ____

39) $\frac{3}{4} + \frac{12}{16} =$ ____

40) $\frac{1}{2} + \frac{4}{8} =$ ____

41) $\frac{2}{3} + \frac{10}{15} =$ ____

42) $\frac{4}{5} + \frac{12}{15} =$ ____

Unlike Fraction - Subtraction

Subtraction of unlike fraction.

1) $\frac{4}{3} - \frac{2}{12} = \_\_\_\_$

2) $\frac{4}{8} - \frac{2}{4} = \_\_\_\_$

3) $\frac{6}{4} - \frac{2}{12} = \_\_\_\_$

4) $\frac{10}{25} - \frac{2}{5} = \_\_\_\_$

5) $\frac{5}{5} - \frac{3}{25} = \_\_\_\_$

6) $\frac{3}{2} - \frac{1}{6} = \_\_\_\_$

7) $\frac{4}{8} - \frac{1}{2} = \_\_\_\_$

8) $\frac{4}{5} - \frac{4}{20} = \_\_\_\_$

9) $\frac{3}{6} - \frac{1}{2} = \_\_\_\_$

10) $\frac{4}{3} - \frac{2}{12} = \_\_\_\_$

11) $\frac{5}{2} - \frac{1}{10} = \_\_\_\_$

12) $\frac{6}{9} - \frac{1}{3} = \_\_\_\_$

13) $\frac{4}{6} - \frac{1}{3} = \_\_\_\_$

14) $\frac{15}{20} - \frac{1}{4} = \_\_\_\_$

15) $\frac{10}{20} - \frac{1}{4} = \_\_\_\_$

16) $\frac{4}{5} - \frac{2}{10} = \_\_\_\_$

17) $\frac{4}{8} - \frac{1}{4} = \_\_\_\_$

18) $\frac{5}{2} - \frac{1}{10} = \_\_\_\_$

19) $\frac{3}{2} - \frac{1}{6} = \_\_\_\_$

20) $\frac{6}{15} - \frac{1}{5} = \_\_\_\_$

21) $\frac{15}{25} - \frac{1}{5} = \_\_\_\_$

22) $\frac{3}{6} - \frac{1}{2} = \_\_\_\_$

23) $\frac{4}{2} - \frac{1}{8} = \_\_\_\_$

24) $\frac{4}{2} - \frac{1}{8} = \_\_\_\_$

25) $\frac{5}{3} - \frac{2}{15} = \_\_\_\_$

26) $\frac{5}{4} - \frac{2}{20} = \_\_\_\_$

27) $\frac{2}{2} - \frac{1}{4} = \_\_\_\_$

28) $\frac{5}{2} - \frac{1}{10} = \_\_\_\_$

29) $\frac{10}{15} - \frac{1}{3} = \_\_\_\_$

30) $\frac{2}{3} - \frac{2}{6} = \_\_\_\_$

31) $\frac{4}{8} - \frac{1}{2} = \_\_\_\_$

32) $\frac{2}{3} - \frac{2}{6} = \_\_\_\_$

33) $\frac{12}{16} - \frac{1}{4} = \_\_\_\_$

34) $\frac{4}{8} - \frac{1}{2} = \_\_\_\_$

35) $\frac{2}{2} - \frac{1}{4} = \_\_\_\_$

36) $\frac{3}{3} - \frac{2}{9} = \_\_\_\_$

37) $\frac{5}{2} - \frac{1}{10} = \_\_\_\_$

38) $\frac{6}{8} - \frac{1}{4} = \_\_\_\_$

39) $\frac{10}{5} - \frac{3}{25} = \_\_\_\_$

40) $\frac{12}{20} - \frac{1}{5} = \_\_\_\_$

41) $\frac{12}{16} - \frac{1}{4} = \_\_\_\_$

42) $\frac{3}{4} - \frac{2}{8} = \_\_\_\_$

Addition of Like Fractions

1) $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} =$

2) $\frac{1}{10} + \frac{3}{10} + \frac{5}{10} =$

3) $\frac{23}{100} + \frac{33}{100} + \frac{13}{100} =$

4) $\frac{44}{150} + \frac{33}{150} + \frac{11}{150} =$

5) $\frac{7}{25} + \frac{9}{25} + \frac{1}{25} =$

6) $\frac{6}{13} + \frac{4}{13} + \frac{11}{13} =$

7) $\frac{9}{45} + \frac{9}{45} + \frac{18}{45} =$

8) $\frac{8}{50} + \frac{9}{50} + \frac{11}{50} =$

9) $\frac{6}{19} + \frac{5}{19} + \frac{7}{19} =$

10) $\frac{4}{49} + \frac{11}{49} + \frac{21}{49} =$

11) $\frac{5}{15} + \frac{19}{15} + \frac{29}{15} =$

12) $\frac{6}{21} + \frac{8}{21} + \frac{4}{21} =$

13) $\frac{9}{43} + \frac{8}{43} + \frac{17}{43} =$

14) $\frac{15}{99} + \frac{33}{99} + \frac{44}{99} =$

15) $\frac{5}{25} + \frac{2}{25} + \frac{7}{25} =$

16) $\frac{6}{75} + \frac{25}{75} + \frac{25}{75} =$

17) $\frac{40}{100} + \frac{12}{100} + \frac{15}{100} =$

18) $\frac{16}{50} + \frac{11}{50} + \frac{15}{50} =$

19) $\frac{21}{79} + \frac{12}{79} + \frac{33}{79} =$

Simplify Expressions

1) $\frac{1}{4} + \frac{3}{4} - \frac{1}{4} =$

2) $\frac{7}{10} - \frac{3}{10} + \frac{5}{10} =$

3) $\frac{53}{100} + \frac{33}{100} - \frac{13}{100} =$

4) $\frac{44}{150} - \frac{33}{150} + \frac{11}{150} =$

5) $\frac{22}{25} - \frac{9}{25} - \frac{1}{25} =$

6) $\frac{60}{75} - \frac{25}{75} - \frac{25}{75} =$

7) $\frac{40}{100} - \frac{12}{100} - \frac{15}{100} =$

8) $\frac{16}{50} + \frac{11}{50} - \frac{15}{50} =$

9) $\frac{21}{79} + \frac{12}{79} - \frac{33}{79} =$

10) $\frac{18}{25} - \frac{2}{25} - \frac{7}{25} =$

11) $\frac{5}{13} + \frac{11}{13} - \frac{10}{13} =$

12) $\frac{7}{45} - \frac{9}{45} - \frac{18}{45} =$

13) $\frac{8}{50} - \frac{9}{50} + \frac{11}{50} =$

14) $\frac{6}{19} + \frac{15}{19} - \frac{17}{19} =$

15) $\frac{4}{49} - \frac{11}{49} + \frac{21}{49} =$

16) $\frac{5}{15} - \frac{19}{15} + \frac{29}{15} =$

17) $\frac{6}{21} - \frac{8}{21} + \frac{4}{21} =$

18) $\frac{19}{43} - \frac{18}{43} + \frac{17}{43} =$

19) $\frac{15}{99} + \frac{33}{99} - \frac{44}{99} =$

Fraction Multiplication

1) $\frac{8}{11} \times \frac{9}{10} =$ ____

2) $\frac{2}{9} \times \frac{9}{7} =$ ____

3) $\frac{7}{9} \times \frac{4}{4} =$ ____

4) $\frac{7}{7} \times \frac{1}{5} =$ ____

5) $\frac{1}{9} \times \frac{2}{4} =$ ____

6) $\frac{5}{8} \times \frac{1}{6} =$ ____

7) $\frac{8}{10} \times \frac{2}{9} =$ ____

8) $\frac{4}{9} \times \frac{4}{6} =$ ____

9) $\frac{9}{11} \times \frac{6}{10} =$ ____

10) $\frac{9}{10} \times \frac{3}{5} =$ ____

11) $\frac{4}{10} \times \frac{1}{12} =$ ____

12) $\frac{4}{6} \times \frac{8}{4} =$ ____

13) $\frac{3}{8} \times \frac{5}{6} =$ ____

14) $\frac{1}{9} \times \frac{5}{8} =$ ____

15) $\frac{8}{4} \times \frac{8}{11} =$ ____

16) $\frac{9}{9} \times \frac{7}{7} =$ ____

17) $\frac{1}{4} \times \frac{2}{10} =$ ____

18) $\frac{2}{4} \times \frac{7}{12} =$ ____

19) $\frac{7}{5} \times \frac{4}{11} =$ ____

Fraction Multiplication

Multiply the fraction.

1) $\frac{2}{6} \times \frac{8}{6} =$ ____

2) $\frac{1}{11} \times \frac{8}{5} =$ ____

3) $\frac{1}{11} \times \frac{4}{10} =$ ____

4) $\frac{7}{9} \times \frac{9}{10} =$ ____

5) $\frac{7}{12} \times \frac{1}{12} =$ ____

6) $\frac{9}{10} \times \frac{8}{12} =$ ____

7) $\frac{1}{11} \times \frac{5}{7} =$ ____

8) $\frac{3}{4} \times \frac{9}{4} =$ ____

9) $\frac{8}{5} \times \frac{4}{10} =$ ____

10) $\frac{3}{5} \times \frac{9}{6} =$ ____

11) $\frac{8}{12} \times \frac{9}{8} =$ ____

12) $\frac{4}{11} \times \frac{7}{9} =$ ____

13) $\frac{9}{12} \times \frac{4}{8} =$ ____

14) $\frac{2}{11} \times \frac{7}{11} =$ ____

15) $\frac{5}{8} \times \frac{3}{9} =$ ____

16) $\frac{5}{10} \times \frac{8}{4} =$ ____

17) $\frac{1}{10} \times \frac{5}{10} =$ ____

18) $\frac{4}{11} \times \frac{9}{8} =$ ____

19) $\frac{1}{8} \times \frac{8}{6} =$ ____

20) $\frac{2}{10} \times \frac{1}{7} =$ ____

21) $\frac{6}{12} \times \frac{8}{9} =$ ____

22) $\frac{9}{10} \times \frac{9}{8} =$ ____

23) $\frac{2}{9} \times \frac{9}{8} =$ ____

24) $\frac{6}{10} \times \frac{1}{5} =$ ____

25) $\frac{1}{5} \times \frac{7}{5} =$ ____

26) $\frac{7}{10} \times \frac{3}{12} =$ ____

27) $\frac{6}{12} \times \frac{4}{8} =$ ____

28) $\frac{3}{4} \times \frac{2}{12} =$ ____

29) $\frac{9}{11} \times \frac{7}{10} =$ ____

30) $\frac{8}{12} \times \frac{3}{12} =$ ____

31) $\frac{8}{10} \times \frac{8}{10} =$ ____

32) $\frac{5}{12} \times \frac{6}{7} =$ ____

33) $\frac{8}{7} \times \frac{5}{9} =$ ____

34) $\frac{2}{6} \times \frac{7}{11} =$ ____

35) $\frac{5}{12} \times \frac{1}{8} =$ ____

36) $\frac{7}{7} \times \frac{1}{10} =$ ____

37) $\frac{2}{4} \times \frac{9}{4} =$ ____

38) $\frac{5}{12} \times \frac{6}{9} =$ ____

39) $\frac{3}{10} \times \frac{3}{6} =$ ____

40) $\frac{4}{6} \times \frac{8}{4} =$ ____

41) $\frac{5}{12} \times \frac{3}{11} =$ ____

42) $\frac{9}{7} \times \frac{5}{9} =$ ____

Add the Unlike Fractions and simplify it

1) $\frac{1}{2} + \frac{2}{3} + \frac{1}{6} = \frac{3 + 4 + 1}{6} = \frac{8}{6} = \frac{4}{3} = 1\frac{1}{3}$

2) $\frac{1}{4} + \frac{1}{2} + \frac{3}{4} =$ _____ = =

3) $\frac{1}{10} + \frac{2}{5} + \frac{3}{10} =$ _____ = =

4) $\frac{2}{7} + \frac{3}{14} + \frac{12}{14} =$ _____ = =

5) $\frac{7}{25} + \frac{4}{5} + \frac{16}{25} =$ _____ = =

6) $\frac{6}{13} + \frac{15}{26} + \frac{11}{13} =$ _____ = =

7) $\frac{3}{4} + \frac{3}{8} + \frac{5}{8} =$ _____ = =

8) $\frac{1}{2} + \frac{2}{3} + \frac{4}{5} =$ _____ = =

9) $\frac{2}{5} + \frac{41}{50} + \frac{2}{10} =$ _____ = =

10) $\frac{19}{25} + \frac{11}{50} + \frac{9}{10} =$ _____ =

Add the Unlike Fractions and simplify it

1) $\frac{1}{2} + \frac{2}{3} + \frac{3}{4} =$ _____ = =

2) $\frac{2}{3} + \frac{7}{9} + \frac{6}{27} =$ _____ = =

3) $\frac{2}{5} + \frac{7}{10} + \frac{11}{20} =$ _____ = =

4) $\frac{7}{15} + \frac{21}{30} + \frac{3}{5} =$ _____ = =

5) $\frac{6}{13} + \frac{15}{26} + \frac{11}{13} =$ _____ = =

6) $\frac{3}{4} + \frac{3}{8} + \frac{22}{24} =$ _____ = =

7) $\frac{3}{40} + \frac{3}{4} + \frac{12}{20} =$ _____ = =

8) $\frac{21}{25} + \frac{71}{100} + \frac{12}{50} =$ _____ = =

9) $\frac{9}{10} + \frac{6}{20} + \frac{6}{30} =$ _____ = =

10) $\frac{4}{7} + \frac{8}{14} + \frac{6}{21} =$ _____ =

Simplify the expression.

1) $\frac{4}{5} + \frac{2}{3} - \frac{1}{10} =$ _____ = =

2) $\frac{2}{3} - \frac{1}{9} + \frac{3}{5} =$ _____ = =

3) $\frac{2}{25} - \frac{7}{10} - \frac{11}{20} =$ _____ = =

4) $\frac{21}{25} - \frac{1}{5} + \frac{2}{3} =$ _____ = =

5) $\frac{6}{13} + \frac{5}{26} + \frac{11}{65} =$ _____ = =

6) $\frac{5}{6} + \frac{7}{8} - \frac{1}{4} =$ _____ = =

7) $\frac{4}{5} - \frac{1}{4} + \frac{7}{10} =$ _____ = =

8) $\frac{21}{25} - \frac{3}{20} + \frac{36}{50} =$ _____ = =

9) $\frac{9}{10} - \frac{4}{20} - \frac{13}{15} =$ _____ = =

10) $\frac{3}{4} + \frac{6}{7} - \frac{3}{14} =$ _____ =

Fraction Division

1) $\frac{6}{9} \div \frac{4}{9} =$ ____ × ____ = ____

2) $\frac{4}{7} \div \frac{1}{12} =$ ____ × ____ = ____

3) $\frac{2}{4} \div \frac{9}{8} =$ ____ × ____ = ____

4) $\frac{6}{12} \div \frac{5}{4} =$ ____ × ____ = ____

5) $\frac{6}{4} \div \frac{3}{11} =$ ____ × ____ = ____

6) $\frac{7}{10} \div \frac{1}{7} =$ ____ × ____ = ____

7) $\frac{8}{9} \div \frac{2}{11} =$ ____ × ____ = ____

8) $\frac{2}{5} \div \frac{5}{7} =$ ____ × ____ = ____

9) $\frac{9}{5} \div \frac{5}{10} =$ ____ × ____ = ____

10) $\frac{7}{10} \div \frac{3}{12} =$ ____ × ____ = ____

Fractions of Numbers

1) $\frac{1}{2}$ of 14 =

2) $\frac{1}{4}$ of 16 =

3) $\frac{1}{2}$ of 26 =

4) $\frac{1}{3}$ of 27 =

5) $\frac{1}{4}$ of 36 =

6) $\frac{1}{3}$ of 42 =

7) $\frac{1}{5}$ of 45 =

8) $\frac{1}{6}$ of 66 =

9) $\frac{1}{5}$ of 100 =

10) $\frac{1}{4}$ of 100 =

11) $\frac{1}{7}$ of 91 =

12) $\frac{1}{6}$ of 90 =

13) $\frac{1}{8}$ of 64 =

14) $\frac{1}{7}$ of 56 =

15) $\frac{1}{5}$ of 75 =

16) $\frac{1}{7}$ of 105 =

17) $\frac{1}{11}$ of 99 =

18) $\frac{1}{10}$ of 140 =

19) $\frac{1}{9}$ of 63 =

20) $\frac{1}{4}$ of 96 =

21) $\frac{1}{8}$ of 120 =

22) $\frac{1}{10}$ of 200 =

23) $\frac{1}{5}$ of 200 =

24) $\frac{1}{4}$ of 200 =

25) $\frac{1}{20}$ of 200 =

26) $\frac{1}{20}$ of 40 =

27) $\frac{1}{25}$ of 125 =

28) $\frac{1}{11}$ of 121 =

29) $\frac{1}{13}$ of 65 =

Fractions of Numbers

1) $\frac{1}{2}$ of 3 =

2) $\frac{1}{4}$ of 5 =

3) $\frac{1}{6}$ of 3 =

4) $\frac{1}{10}$ of 7 =

5) $\frac{1}{10}$ of 15 =

6) $\frac{1}{8}$ of 28 =

7) $\frac{1}{9}$ of 99 =

8) $\frac{1}{2}$ of 21 =

9) $\frac{1}{2}$ of 39 =

10) $\frac{1}{4}$ of 25 =

11) $\frac{1}{4}$ of 42 =

12) $\frac{1}{3}$ of 31 =

13) $\frac{1}{3}$ of 20 =

14) $\frac{1}{5}$ of 17 =

15) $\frac{1}{6}$ of 21 =

16) $\frac{1}{8}$ of 100 =

17) $\frac{1}{8}$ of 50 =

18) $\frac{1}{8}$ of 25 =

19) $\frac{1}{8}$ of 84 =

20) $\frac{1}{10}$ of 88 =

21) $\frac{1}{10}$ of 67 =

22) $\frac{1}{20}$ of 30 =

23) $\frac{1}{20}$ of 3 =

24) $\frac{1}{30}$ of 36 =

25) $\frac{1}{20}$ of 50 =

26) $\frac{1}{10}$ of 92 =

27) $\frac{1}{15}$ of 50 =

28) $\frac{1}{15}$ of 20 =

29) $\frac{1}{15}$ of 35 =

Simplify Expression

1) $\frac{1}{5} \times \frac{5}{10} \times \frac{10}{15} =$

2) $\frac{1}{2} \times \frac{2}{3} \times \frac{3}{4} =$

3) $\frac{22}{7} \times \frac{7}{22} \times \frac{5}{7} =$

4) $\frac{4}{7} \times \frac{14}{4} \times \frac{2}{3} =$

5) $\frac{9}{90} \times \frac{8}{80} \times \frac{7}{70} =$

6) $\frac{7}{5} \times \frac{5}{4} \times \frac{1}{7} =$

7) $\frac{25}{100} \times \frac{20}{80} \times \frac{1}{4} =$

8) $\frac{9}{11} \times \frac{33}{3} \times \frac{5}{6} =$

9) $\frac{2}{5} \times \frac{2}{5} \times \frac{25}{80} =$

10) $\frac{3}{12} \times \frac{4}{3} \times \frac{3}{4} =$

11) $\frac{6}{10} \times \frac{11}{12} \times \frac{10}{3} =$

12) $\frac{25}{2} \times \frac{5}{25} \times \frac{6}{5} =$

13) $\frac{4}{11} \times \frac{1}{2} \times \frac{44}{8} =$

14) $\frac{10}{15} \times \frac{12}{100} \times \frac{15}{6} =$

15) $\frac{22}{7} \times \frac{1}{3} \times \frac{7}{11} =$

16) $\frac{9}{11} \times \frac{22}{7} \times \frac{7}{13} =$

17) $\frac{6}{20} \times \frac{3}{5} \times \frac{100}{39} =$

18) $\frac{3}{15} \times \frac{2}{7} \times \frac{45}{9} =$

19) $\frac{18}{25} \times \frac{75}{27} \times \frac{20}{30} =$

Add the Mixed Fractions

1) $12\frac{1}{2} + 12\frac{1}{2} =$

2) $37\frac{1}{2} + 22\frac{1}{2} =$

3) $64\frac{1}{4} + 34\frac{3}{4} =$

4) $31\frac{2}{5} + 11\frac{2}{5} =$

5) $11\frac{3}{11} + 88\frac{2}{11} =$

6) $4\frac{1}{2} + 14\frac{3}{4} =$

7) $6\frac{1}{6} + 12\frac{2}{3} =$

8) $7\frac{1}{4} + 14\frac{1}{8} =$

9) $5\frac{5}{6} + 3\frac{1}{6} =$

10) $49\frac{3}{4} + 25\frac{3}{4} =$

11) $54\frac{5}{7} + 42\frac{3}{4} =$

12) $13\frac{7}{9} + 43\frac{7}{18} =$

13) $100\frac{3}{26} + 50\frac{3}{13} =$

14) $91\frac{3}{11} + 53\frac{31}{33} =$

15) $43\frac{5}{9} + 49\frac{9}{10} =$

16) $18\frac{5}{6} + 24\frac{5}{18} =$

17) $33\frac{1}{3} + 33\frac{1}{3} =$

18) $24\frac{2}{13} + 75\frac{1}{39} =$

19) $14\frac{5}{13} + 11\frac{8}{13} =$

Subtraction of Mixed Fractions

1) $57\frac{1}{2} - 12\frac{1}{2} =$

2) $72\frac{1}{2} - 29\frac{1}{2} =$

3) $64\frac{3}{4} - 34\frac{1}{2} =$

4) $31\frac{4}{5} - 11\frac{2}{5} =$

5) $92\frac{8}{11} - 68\frac{2}{11} =$

6) $54\frac{3}{4} - 14\frac{1}{2} =$

7) $26\frac{2}{3} - 12\frac{1}{6} =$

8) $70\frac{1}{4} - 14\frac{1}{8} =$

9) $5\frac{1}{6} - 3\frac{5}{6} =$

10) $49\frac{1}{4} - 25\frac{3}{4} =$

11) $54\frac{5}{7} - 42\frac{3}{4} =$

12) $53\frac{7}{9} - 43\frac{7}{18} =$

13) $100\frac{3}{26} - 50\frac{3}{13} =$

14) $91\frac{3}{11} - 53\frac{31}{33} =$

15) $43\frac{5}{9} - 39\frac{9}{10} =$

16) $38\frac{5}{6} - 24\frac{5}{18} =$

17) $66\frac{1}{3} - 33\frac{2}{3} =$

18) $24\frac{2}{13} - 7\frac{1}{39} =$

19) $14\frac{5}{13} - 11\frac{8}{13} =$

Simplify Algebraic Expressions

1) $4y + 11y + 2y =$

2) $3x + 7x + 2x =$

3) $2x^2 + 4x^2 + 3x^2 =$

4) $10x + 5x + 12x =$

5) $4y + 2y + 6y =$

6) $4y^2 + 12y^2 + 4y^2 =$

7) $2y + 6y + 10y =$

8) $6x + 3x + 10x =$

9) $5x - x - x =$

10) $15x - 10x - 5x =$

11) $12x - 6x + 4x =$

12) $14x - 5x - 4x =$

13) $5y + 4y - 3y =$

14) $y - 10y + 2y =$

15) $3x - 2x - 2x =$

16) $7x^2 - 5x^2 - 4x^2 =$

17) $10y^2 - 8y^2 - 5y^2 =$

18) $5x - 4x - 4x =$

19) $-2x - 3x - 4x =$

20) $-3y^2 - 4y^2 - 2y^2 =$

21) $x + x + 10 + 5 =$

22) $y^2 + y^2 + 10 + 2 =$

23) $x^2 + 4x^2 + 1 + 4 =$

24) $4y + 5y + 2 + 12 =$

25) $6y^2 + y^2 + 5 + 15 =$

26) $x + x + 12 - 3 =$

27) $12x + 3x + 9 - 5 =$

28) $7y + 3y + 7 - 3 =$

29) $5y^2 + 6y^2 + 16 - 6 =$

30) $4y^2 + 6y^2 + 9 - 2 =$

31) $x + 4x - 10 - 20 =$

32) $7y + 2y - 7 - 2 =$

33) $3x^2 + 13x^2 - 13 - 12 =$

34) $4y^2 + 8y^2 - 6 - 6 =$

35) $7y + 8y - 5 - 6 =$

36) $x^2 + x^2 + x^2 =$

37) $x^2 + x^2 + x =$

38) $2x + 3x + 7x =$

39) $7y + y + y =$

40) $3x + y + x =$

41) $3x^2 + 2x^2 + 5x^2 =$

42) $4x^2 + 9x^2 + 4x =$

43) $5x + 3x + 7x =$

44) $7y + 5y + 2y =$

45) $3x + 3y + 3x =$

46) $4x^2 + 2x^2 + 2 + 4 =$

47) $9x^2 + x^2 + 7 + 10 =$

48) $3x^2 + 10x^2 + x^2 + 11 + 9 =$

49) $7y^2 + 4y^2 + 11 + 4 =$

50) $3y^2 + 4y^2 + 5y^2 =$

51) $4y^2 + 10 - 2y^2 - 5 =$

52) $5y^2 - y^2 + 5 - 1 =$

53) $20y^2 - 10y^2 + 20 - 10 =$

54) $2y^2 - y^2 - 10 - 10 =$

55) $3y^2 + 2y^2 - 3 - 2 =$

56) $4x + 5x - 3y - 2y =$

57) $5x^2 + 3x^2 + 5y^2 - 3y^2 =$

58) $4x^2 + 5x^2 - 2y^2 - 5y^2 =$

59) $3x^2 + x^2 - y^2 - y^2 =$

60) $7x^2 + 4x^2 - 7y^2 + 4y^2 =$

Addition

1. $(2x + 3) + (3x + 5) =$
2. $(7x + 5) + (x + 1) =$
3. $(10x + 3) + (2x + 31) =$
4. $(5x + 8) + (4x + 3) =$
5. $(4x + 3) + (2x + 8) =$
6. $(3x - 3) + (7x - 9) =$
7. $(6x - 6) + (x - 1) =$
8. $(10x - 3) + (2x - 9) =$
9. $(7x + 8) + (3x - 3) =$
10. $(8x + 13) + (3x - 3) =$
11. $(x^2 + 2x - 3) + (x2 + 7x - 5) =$
12. $(3x^2 + 7x + 3) + (x^2 + 2x + 3) =$
13. $(7x^2 - 9x + 8) + (3x^2 + 7x - 7) =$
14. $(4x^2 + 5x - 9) + (2x^2 + 2x - 5) =$
15. $(x^2 - 2x - 3) + (8x^2 - 7x - 5) =$
16. $(4x + 3) + (2x + 3) + (3x + 5) =$
17. $(3x + 3) + (7x + 5) + (x + 1) =$
18. $(4x + 8) + (10x + 3) + (2x + 31) =$
19. $(5x + 8) + (x + 1) + (4x + 3) =$
20. $(4x + 3) + (2x + 8) + (2x + 8) =$
21. $(x + y + 2) + (2x + 3y + 7) =$
22. $(7x + 2y + 4) + (2x + 4y + 5) =$
23. $(3x + 6y + 5) + (6x + 3y + 4) =$
24. $(7x + 4y + 15) + (8x + 3y + 5) =$
25. $(6x + 2y + 7) + (5x + 9y + 9) =$
26. $(x - 3y - 5) + (3x - 5y - 7) =$
27. $(2x - 5y + 15) + (7x + 5y - 17) =$
28. $(5x + 5y - 9) + (2x - 3y + 9) =$
29. $(4x - 5y + 6) + (3x + 8y - 11) =$
30. $(9x - 7y - 7) + (4x + 7y - 7) =$

Addition (Part 2)

1. $(x + y + 1) + (2x + 4y + 5) + (4x + 5y + 3) =$
2. $(2x + 3y + 4) + (3x + 2y + 7) + (5x + 4y + 3) =$
3. $(6x - 2y + 7) + (5x + 4y + 6) + (2x + 3y - 3) =$
4. $(3x - 2y + 5) + (4x - 6y - 6) + (x + 3y - 3) =$
5. $(9x - 4y + 7) + (2x + 2y + 3) + (3x + 3y + 2) =$
6. $(x - y - 1) + (3x - 3y + 5) + (6x + 4y - 3) =$
7. $(2x - 3y + 4) + (3x + 2y - 7) + (5x - 4y + 3) =$
8. $(3x - 2y + 10) + (5x + 4y - 7) + (2x - 3y - 3) =$
9. $(3x - 3y + 4) + (8x - 4y - 3) + (x + 7y - 1) =$
10. $(5x - 6y - 7) + (x + 2y + 7) + (3x + 4y + 12) =$
11. $(x^2 + 2x + 3) + (4x^2 + 7x + 3) + (x^2 + 7x + 5) =$
12. $(3x^2 + 7x + 3) + (2x^2 + 3x + 4) + (3x^2 + 2x + 3) =$
13. $(2x^2 + 3x + 4) + (7x^2 + 2x + 4) + (3x^2 + 7x + 4) =$
14. $(3x^2 + 4x + 1) + (4x^2 + 5x + 9) + (2x^2 + 2x + 2) =$
15. $(2x^2 - 3x - 4) + (x^2 - 2x - 3) + (8x^2 - 7x - 5) =$
16. $(y^2 - 2y + 3) + (y^2 + 7y - 6) + (y^2 - 3y + 5) =$
17. $(y^2 - 5y - 3) + (2y^2 + 4y - 4) + (2y^2 - 2y + 5) =$
18. $(2y^2 - 3y + 9) + (7y^2 + 2y - 4) + (3y^2 + 7y - 3) =$
19. $(3y^2 - 2y + 1) + (4y^2 - 3y + 5) + (2y^2 + 4y + 2) =$
20. $(2y^2 - 3y - 4) + (y^2 + 2y - 3) + (5y^2 - 4y + 5) =$

Subtraction

1. $(5x + 8) - (3x + 5) =$
2. $(7x + 5) - (x + 1) =$
3. $(10x + 31) - (2x + 11) =$
4. $(5x + 8) - (3x + 3) =$
5. $(4x + 13) - (2x + 8) =$
6. $(13x - 3) - (7x - 9) =$
7. $(6x - 6) - (x - 1) =$
8. $(10x - 3) - (2x - 7) =$
9. $(7x + 8) - (3x - 3) =$
10. $(8x + 13) - (3x - 3) =$
11. $(9x^2 + 9x + 9) - (x^2 + 7x + 5) =$
12. $(5x^2 + 7x + 3) - (x^2 + 2x + 1) =$
13. $(7x^2 + 9x + 8) - (x^2 + 2x + 7) =$
14. $(3x^2 + 5x + 9) - (2x^2 + 2x + 5) =$
15. $(11x^2 + 12x + 6) - (8x^2 + 7x + 5) =$
16. $(3x^2 + 2x - 3) - (x^2 + 7x - 5) =$
17. $(3x^2 - 7x + 3) - (x^2 + 2x + 1) =$
18. $(7x^2 - 9x + 8) - (3x^2 + 7x - 7) =$
19. $(4x^2 + 5x - 9) - (2x^2 + 2x - 5) =$
20. $(11x^2 - 2x - 3) - (8x^2 - 7x - 5) =$
21. $(6x^2 + 2x - 6) - (x^2 + 2x - 5) =$
21. $(2x^2 + 7x + 13) - (2x^2 + 5x + 1) =$
23. $(9x^2 - 9x + 6) - (3x^2 - 9x - 6) =$
24. $(9x^2 + 7x - 9) - (6x^2 + 2x - 9) =$
25. $(9x^2 - 2x - 7) - (8x^2 - 5x - 5) =$
26. $(5x + 3y + 2) - (2x + 3y + 7) =$
27. $(7x + 2y + 4) - (2x + 4y + 5) =$
28. $(7x + 6y + 5) - (6x + 3y + 4) =$
29. $(17x + 4y + 15) - (8x + 3y + 5) =$
30. $(6x + 2y + 7) - (5x + 9y + 9) =$
31. $(5x - 3y - 5) - (3x - 5y - 7) =$
32. $(12x - 5y + 15) - (7x + 5y - 7) =$
33. $(5x + 5y - 9) - (2x - 3y - 9) =$
34. $(4x - 5y + 6) - (3x + 8y - 11) =$
35. $(7x - 7y - 7) - (4x + 7y - 7) =$

Multiply

1) $2 \cdot 3x =$
2) $3 \cdot 4y =$
3) $6 \cdot 11y =$
4) $7 \cdot 7x =$
5) $10 \cdot 12y =$
6) $3 \cdot 4x^2 =$
7) $4 \cdot 2y^2 =$
8) $2 \cdot 8x^2 =$
9) $7 \cdot 11x^2 =$
10) $5 \cdot 5y^2 =$
11) $2x \cdot 4x =$
12) $4x \cdot 6x =$
13) $12x \cdot 2x =$
14) $5x \cdot 6x =$
15) $3x \cdot 7x =$
16) $2x \cdot 3y =$
17) $10x \cdot 5y =$
18) $4y \cdot 2x =$
19) $3y \cdot 7x =$
20) $9y \cdot 6x =$
21) $3x \cdot 4x^2 =$
22) $5y \cdot 3y^2 =$
23) $4y \cdot 4y^2 =$
24) $7x \cdot 4x^2 =$
25) $11x \cdot 3x^2 =$
26) $4\ (x + 3) =$
27) $7\ (2x + 7) =$
28) $3\ (6x + 5) =$
29) $2\ (20y + 10) =$
30) $5\ (9y + 12) =$
31) $3\ (y - 5) =$
32) $6\ (2x - 5) =$
33) $8\ (6x - 4) =$
34) $11\ (4y - 9) =$
35) $9\ (9x - 8) =$
36) $4\ (2x^2 + 3x + 4) =$
37) $5\ (3x + 2y + 4) =$
38) $7\ (4y^2 + y + 2) =$
39) $3\ (7y^2 + 4y + 9) =$
40) $2\ (9x - 3y + 2) =$
41) $4\ (4x^2 - 3x - 2) =$
42) $5\ (4x^2 - 3y^2 + 15) =$
43) $11\ (4y^2 + 7y - 2) =$
44) $9\ (x - y - 5) =$
45) $20\ (4x + 3y - 5) =$
46) $2x\ (2x + 3) =$
47) $3y\ (3y + 5) =$
48) $3x\ (7x + 8) =$
49) $5y\ (9y - 11) =$
50) $7y\ (6y - 5) =$
51) $4x\ (2x^2 + 4x - 3) =$
52) $2y\ (7y^2 + 4y + 5) =$
53) $6x\ (2x^2 - 4x - 6) =$
54) $y\ (y^2 - y - 1) =$
55) $3y\ (6y^2 - 5y + 9) =$
56) $x^2\ (5x + 99) =$
57) $3y^2\ (3y - 9) =$
58) $2x^2\ (3x + 5) =$
59) $5y^2\ (6y + 4) =$
60) $9y^2\ (9y - 7) =$

Multiply (Part 2)

1) $3y \cdot 4x^2 =$

2) $7x \cdot 3y^2 =$

3) $4x \cdot 6y =$

4) $5x^2 \cdot 2y^2 =$

5) $4x^2 \cdot 9y =$

6) $2x \cdot 4xy =$

7) $3x \cdot 9xy =$

8) $10y \cdot 10xy =$

9) $4x \cdot 5x^2y =$

10) $6y \cdot 3x^2y^2 =$

11) $3y \cdot 4x^2 =$

12) $7x^2 \cdot 5y^2 =$

13) $11x^2 \cdot 5y =$

14) $5y^2 \cdot 10x^3 =$

15) $20x^2 \cdot 10xy =$

16) $2y \cdot (2x + 3) =$

17) $4x \cdot (5y - 6) =$

18) $7x \cdot (7y - 8) =$

19) $8y \cdot (4x + 1) =$

20) $2y \cdot (5x - 9) =$

21) $4y(2x^2 + 4x - 3) =$

22) $5x \cdot (2y^2 - 4y + 3) =$

23) $7x \cdot (y^2 + 2y - 10) =$

24) $8y \cdot (5x^2 - 6x + 9) =$

25) $4y \cdot (3x^2 - 8x - 8) =$

26) $2y^2 \cdot (3x + 5) =$

27) $x^2 \cdot (21y - 27) =$

28) $5y^2 \cdot (5x + 9) =$

29) $9x^2 \cdot (3y - 8) =$

30) $7y^2 \cdot (7x - 4) =$

31) $2y^2 \cdot (2x^2 + 3x + 5) =$

32) $2y^2 \cdot x^2 - 9x - 5) =$

33) $5x^2 \cdot (4y^2 - 7y + 8) =$

34) $7y^2 \cdot (3x^2 - 5x - 11) =$

35) $9x^2 \cdot (2y^2 - 7y + 5) =$

36) $4y \cdot (2x + 4y - 3) =$

37) $5x \cdot (5x - 6y + 8) =$

38) $3x \cdot (9x + 2y - 5) =$

39) $8y \cdot (6x + 6y - 9) =$

40) $7y \cdot (5x + 4y - 8) =$

Division

1) $\frac{8x}{2} =$

2) $\frac{12y}{4} =$

3) $\frac{66y}{6} =$

4) $\frac{49x}{7} =$

5) $\frac{120y}{10} =$

6) $\frac{20x^2}{5} =$

7) $\frac{8y^2}{4} =$

8) $\frac{16x^2}{2} =$

9) $\frac{77x^2}{7} =$

10) $\frac{25y^2}{5} =$

11) $\frac{8x}{2x} =$

12) $\frac{24x}{4x} =$

13) $\frac{22x}{2x} =$

14) $\frac{30x}{6x} =$

15) $\frac{21x}{7x} =$

16) $\frac{4x^2}{x} =$

17) $\frac{15y^2}{5y} =$

18) $\frac{4y^2}{4y} =$

19) $\frac{28x^2}{7x} =$

20) $\frac{33x^2}{3x} =$

21) $\frac{4x+12}{4} =$

22) $\frac{14x+49}{7} =$

23) $\frac{18x+15}{3} =$

24) $\frac{40y+20}{2} =$

25) $\frac{45y+60}{5} =$

26) $\frac{3y-15}{3} =$

27) $\frac{12x-30}{6} =$

28) $\frac{48x-32}{8} =$

29) $\frac{44y-99}{11} =$

30) $\frac{81x-72}{9} =$

31) $\frac{8x^2+12x+16}{4} =$

32) $\frac{15x+10y+20}{5} =$

33) $\frac{28y^2+7y+14}{7} =$

34) $\frac{21y^2+12y+27}{3} =$

35) $\frac{18x-6y+4}{2} =$

36) $\frac{16x^2-12x-8}{4} =$

Division (Part 2)

37) $\frac{20x^2 - 15y^2 + 75}{5} =$

38) $\frac{44y^2 + 77y - 22}{11} =$

39) $\frac{9x - 9y - 45}{9} =$

40) $\frac{80x + 60y - 100}{20} =$

41) $\frac{4x^2 + 6x}{2x} =$

42) $\frac{9y^2 + 15y}{3y} =$

43) $\frac{21x^2 + 24x}{3x} =$

44) $\frac{345y^2 - 55y}{5y} =$

45) $\frac{42y^2 - 35y}{7y} =$

46) $\frac{8x^3 + 16x^2 - 12x}{4x} =$

47) $\frac{14y^3 + 8y^2 + 10y}{2y} =$

48) $\frac{12x^3 - 24x^2 - 36x}{6x} =$

49) $\frac{y^3 - y^2 - y}{y} =$

50) $\frac{18y^3 - 15y^2 + 27y}{3y} =$

51) $\frac{5x^3 + 99x^2}{x^2} =$

52) $\frac{9y^3 - 27y^2}{3y^2} =$

53) $\frac{6x^3 + 10x^2}{2x^2} =$

54) $\frac{30y^3 + 20y^2}{5y^2} =$

55) $\frac{81y^3 - 63y^2}{9y^2} =$

56) $\frac{3x \cdot (x + 1)}{x + 1} =$

57) $\frac{7y \cdot (x - 5)}{x - 5} =$

58) $\frac{(3x - 5) \cdot (4x + 5)}{4x + 5} =$

59) $\frac{4y \cdot (x + 4)}{x + 4} =$

60) $\frac{9y \cdot (x + 1)}{3y} =$

BASIC GEOMETRY

Point

A point represents an exact location in space. It has no size, width, length, or depth. It is usually labeled with a capital letter (e.g., Point A).

Line:

A straight path that extends infinitely in both directions. It has length but no thickness and is defined by at least two points.

Denoted with $\overleftrightarrow{AB}$

Line Segment:

A part of a line that has two endpoints. It has a definite beginning and end.

Denoted with $\overline{CD}$

Ray

A part of a line that starts at one point (endpoint) and extends infinitely in one direction.

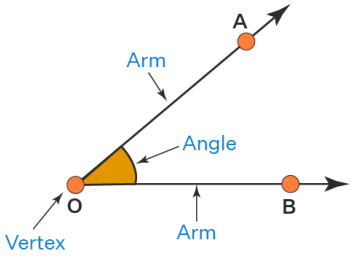
Denoted with $\overrightarrow{KL}$

Vertex

The common endpoint of two rays or line segments that form an angle.

Angle

Formed by two rays (or line segments) that share a common endpoint, called the vertex.



Types of Angles:

Acute Angle

An angle that measures less than 90 degrees. (0°<x<90°)

Right Angle

An angle that measures exactly 90 degrees. (X=90°)

Obtuse Angle

An angle that measures more than 90 degrees but less than 180 degrees. (90° <x< 180°)

Straight Angle

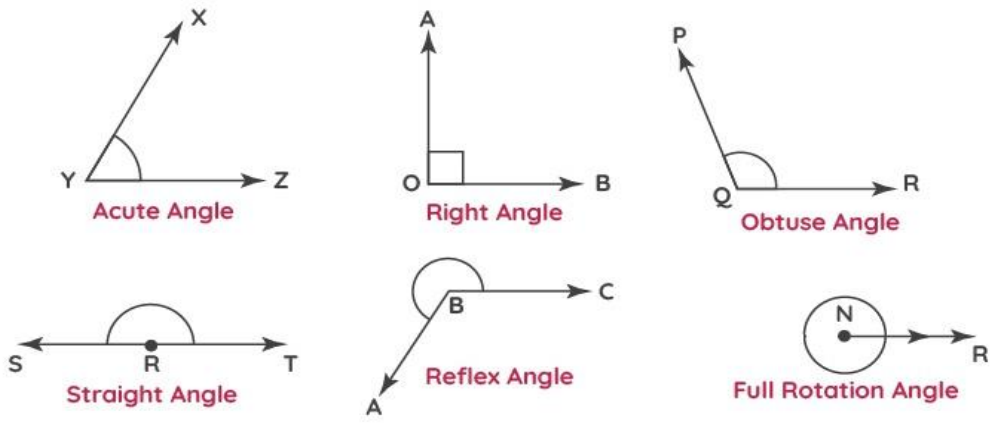
An angle that measures exactly 180 degrees. It forms a straight line. X= 180°

Reflex Angle

An angle that measures more than 180 degrees but less than 360 degrees. (180° <x< 360°).

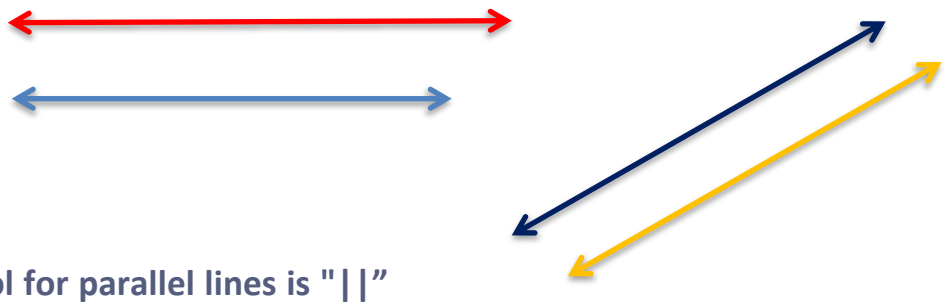
Complete Angle (Full rotation Angle)

An angle that measures exactly 360 degrees. (X=360°)



Parallel Lines

Parallel lines are lines that never intersect and maintain a constant distance from each other, no matter how far they extend.



Symbol:

The symbol for parallel lines is "||"

Perpendicular Lines

- Two lines are perpendicular if they intersect at a right angle (90 degrees).
- Symbol: The symbol for perpendicular lines is "⊥"

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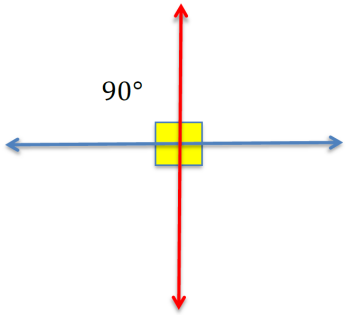


Parallel Lines	Perpendicular Lines
Parallel lines are those that never intersect and are always the same distance apart.	Perpendicular lines are those that always intersect each other at right angles.
Perpendicular lines are denoted by the symbol ⊥	The symbol || is used to represent parallel lines.
Examples of parallel lines: Railway tracks, opposite sides of a whiteboard.	Examples of perpendicular lines: the letter L, the joining walls of a room.

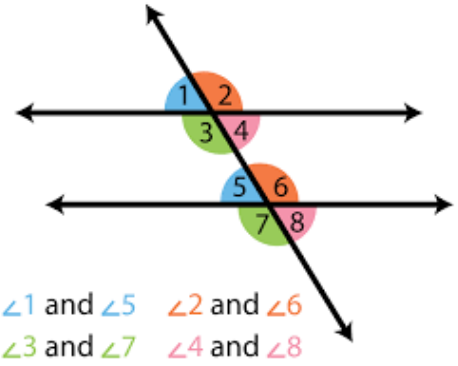
Transversal line :

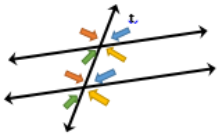
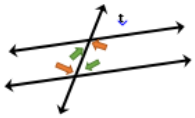
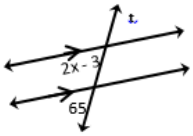
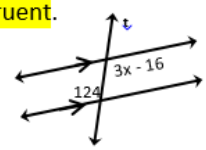
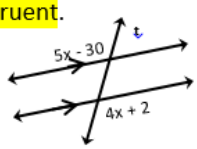
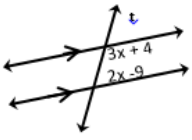
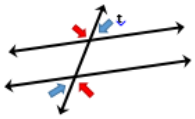
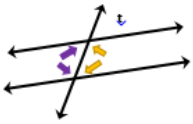
A transversal is a line that intersects two or more other lines at different points.

Angle Relationships:

- When a transversal intersects parallel lines, it creates pairs of angles with specific relationships:
- Corresponding angles: Angles in the same relative position at each intersection (e.g., both upper left).

- Alternate interior angles: Angles on opposite sides of the transversal and inside the parallel lines (e.g., diagonally across).
- Alternate exterior angles: Angles on opposite sides of the transversal and outside the parallel lines.
- Same-side interior angles: Angles on the same side of the transversal and inside the parallel lines.
- Vertical angles: Angles opposite each other at an intersection.



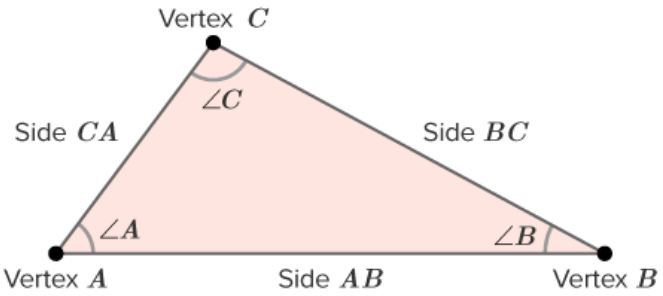
Two angles are corresponding angles when they have corresponding positions. 	Two angles are alternate interior angles when they lie between the two lines and on opposite sides of the transversal. 
If two parallel lines are cut by a transversal, corresponding angles are congruent. 	If two parallel lines are cut by a transversal, alternate interior angles are congruent. 
If two parallel lines are cut by a transversal, alternate exterior angles are congruent. 	If two parallel lines are cut by a transversal, consecutive interior angles are supplementary. 
Two angles are alternate exterior angles when they lie outside the two lines and on opposite sides of the transversal. 	Two angles are consecutive interior angles when they lie between the two lines and on same side of the transversal. 

Polygon : A polygon is a closed two-dimensional geometric figure formed by three or more straight line segments connected end-to-end.

These line segments are called sides or edges, and the points where the sides meet are called vertices. Polygons are characterized by having a finite number of sides and angles.

Triangle

A triangle is a two-dimensional geometric shape with three sides, three angles, and three vertices, formed by the intersection of three lines. The sum of the interior angles of any triangle is always 180 degrees.



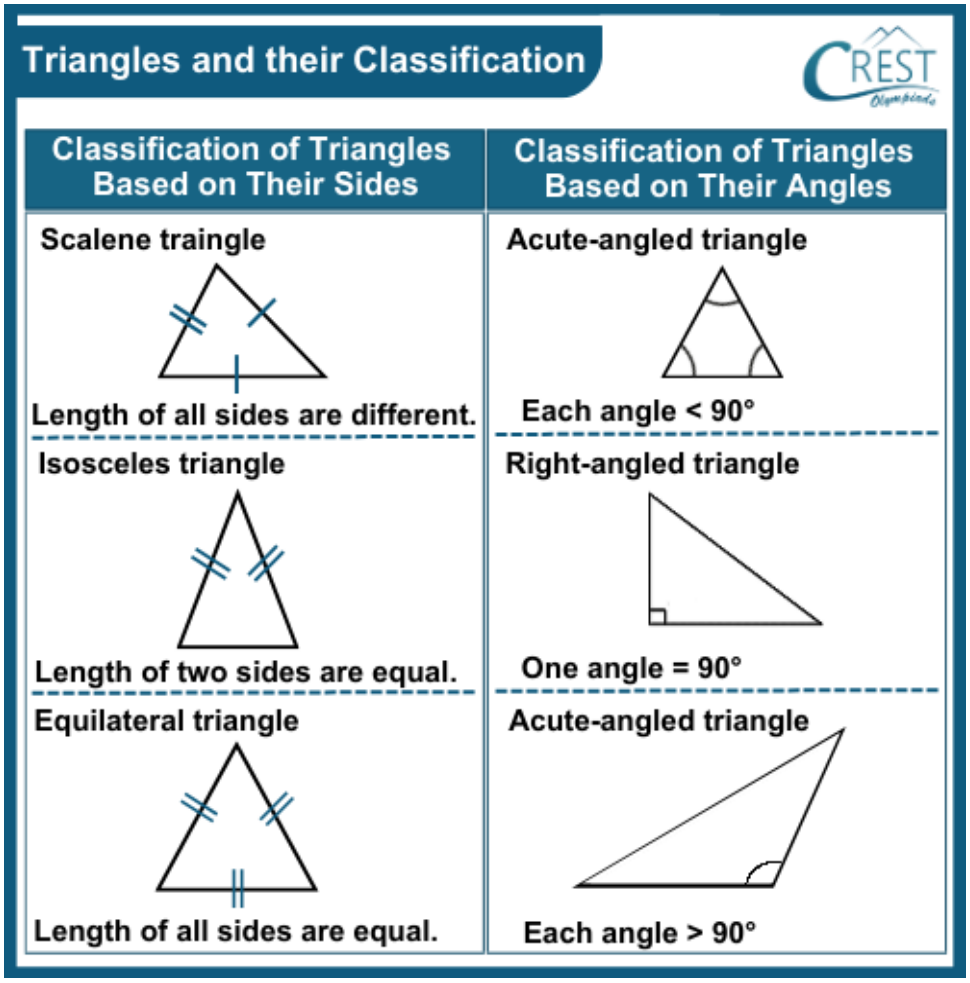
Types of Triangles : Triangles can be classified based on their sides (equilateral, isosceles, scalene) and angles (acute, obtuse, right).

Equilateral triangles have all sides and angles equal (60 degrees each).

Isosceles triangles have two equal sides and two equal angles.

Scalene triangles have all sides and angles unequal.

Acute triangles have all angles less than 90 degrees, obtuse triangles have one angle greater than 90 degrees, and right triangles have one angle equal to 90 degrees



Quadrilateral

A quadrilateral is a polygon with four sides (or edges) and four vertices (or corners).
It's a two-dimensional shape with straight sides and a closed boundary.
The sum of the interior angles in any quadrilateral is always 360 degrees.
Quadrilaterals can be classified into various types, including rectangles, squares, parallelograms, rhombuses, trapezoids and Kites.

Key Characteristics:

- **Four Sides:** All quadrilaterals have four distinct line segments that form the shape.
- **Four Vertices:** These are the points where the sides of the quadrilateral meet.
- **Closed Shape:** The sides of a quadrilateral are connected, forming a closed figure.
- **Straight Sides:** The sides of a quadrilateral are always straight lines.
- **Sum of Angles:** The four interior angles of a quadrilateral always add up to 360 degrees.

Name of the Quadrilateral:	Picture of Quadrilateral:	Properties of the Quadrilateral:
Parallelogram		Opposite sides are parallel. Opposites sides are equal. Opposite angles are equal.
Square		All sides are equal. All angles are equal and measure 90°.
Rectangle		Opposite sides are parallel. Opposites sides are equal. All angles are equal and measure 90°.
Rhombus		All sides are equal. Opposite angles are equal.
Trapezoid		Opposite sides are parallel. Adjacent angles add up to 180°.
Kite		Adjacent sides are equal. One pair of opposite angles are equal.

SplashLearn

Circle

A round shape where all points are equidistant from the center point.

Radius

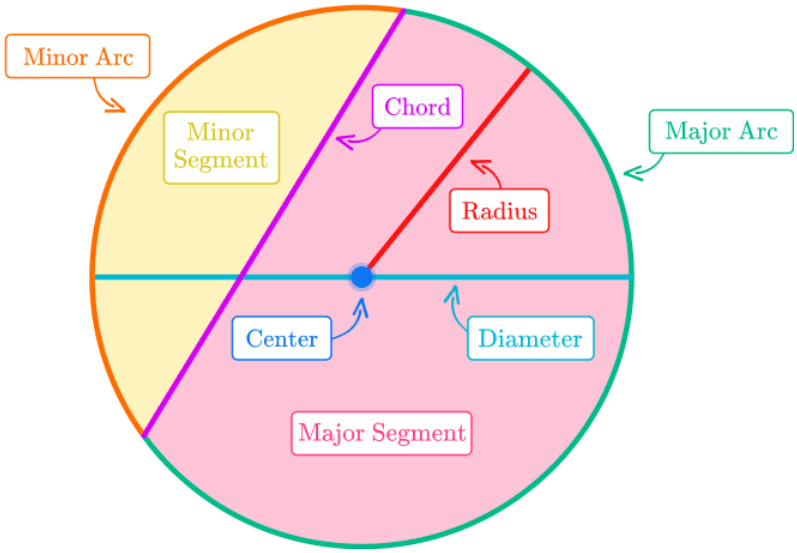
A line segment from the center of a circle to any point on its circumference.

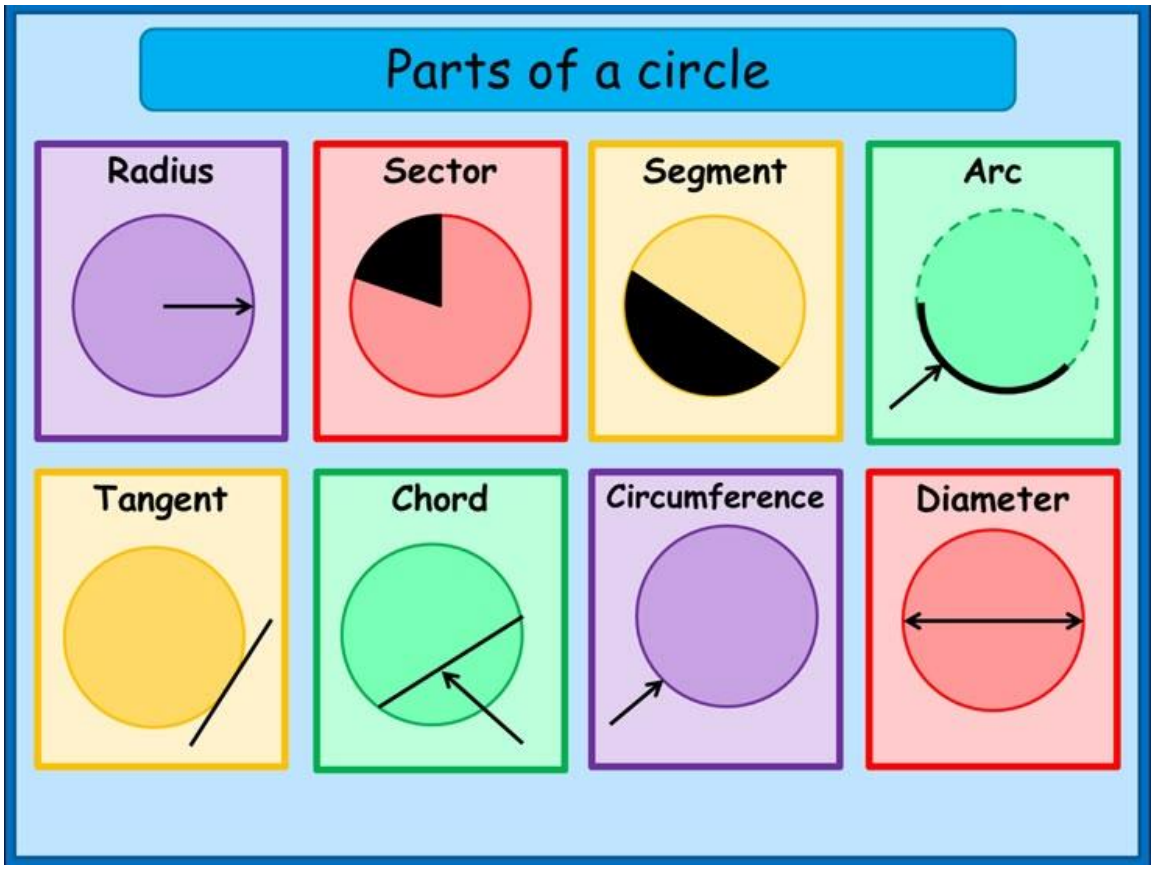
Diameter

A line segment that passes through the center of a circle and has its endpoints on the circle. It is twice the radius.

Circumference

The distance around a circle (its perimeter).





Area
The amount of space inside a two-dimensional shape. It is measured in square units.

Perimeter
The total distance around the boundary of a shape.

Volume
The amount of space inside a three-dimensional object. It is measured in cubic units.

Congruent

Figures or shapes that are the same size and shape.

Similar

Figures that have the same shape but may have different sizes.

Symmetry

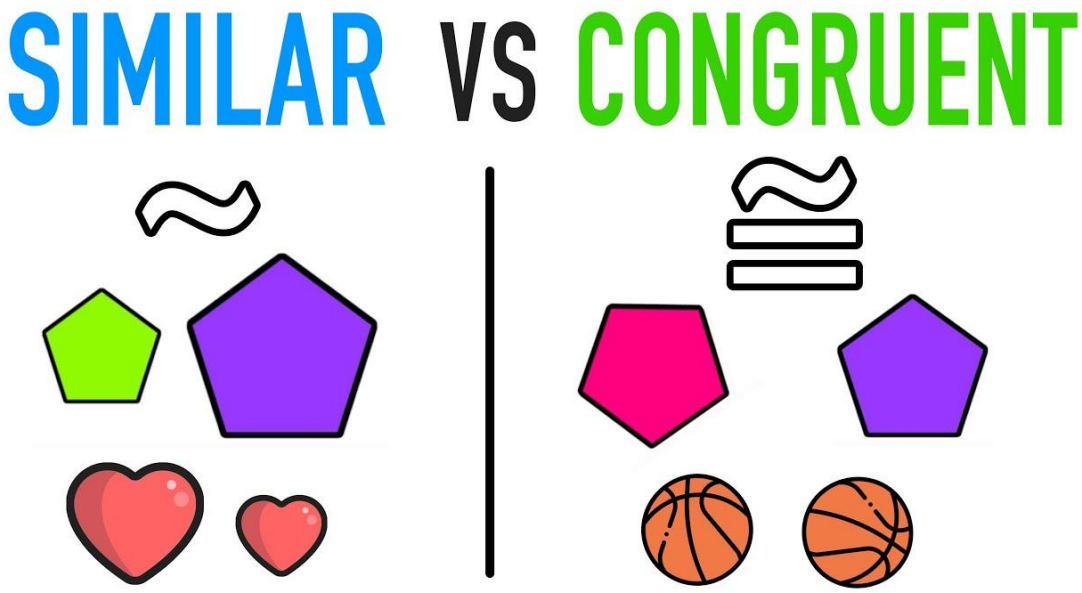
When one half of a figure is a mirror image of the other half.

Congruent Figures:

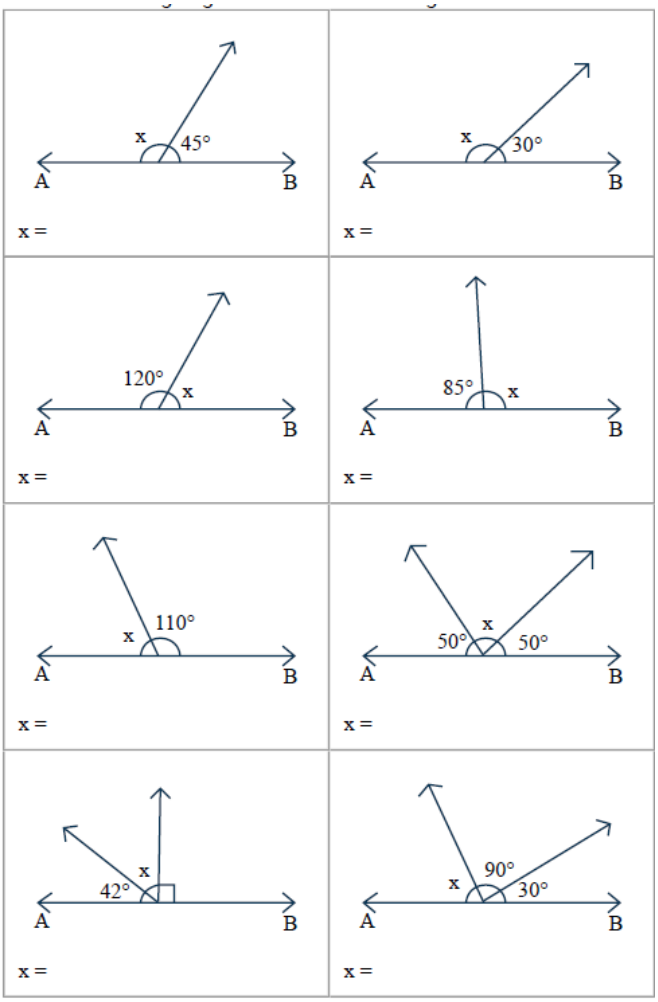
- **Same shape and size:** All corresponding angles and sides are equal.
- **Can be superimposed:** If you placed one congruent figure on top of the other, they would perfectly match.
- **Example:** Two squares with sides of 5 cm are congruent.

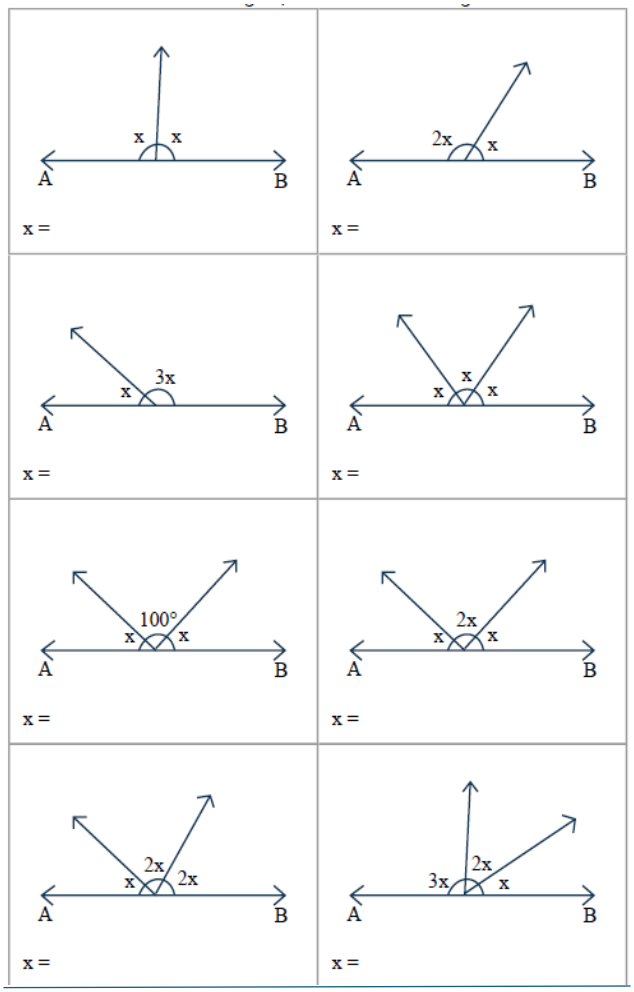
Similar Figures:

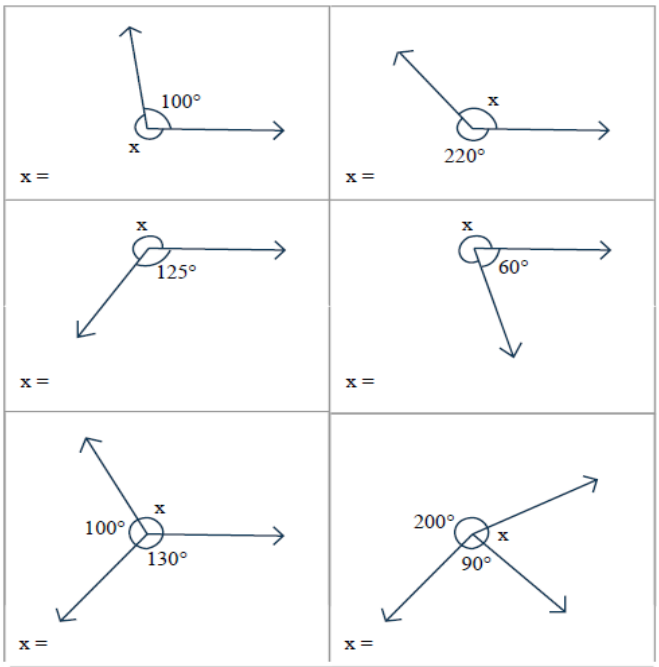
- **Same shape, different size:** Corresponding angles are equal, but corresponding sides are proportional (one is a scaled version of the other).
- **Example:** Two equilateral triangles, one with sides of 3 cm and another with sides of 6 cm, are similar.
- **Example:** A photograph and a smaller copy of the same photograph are similar.

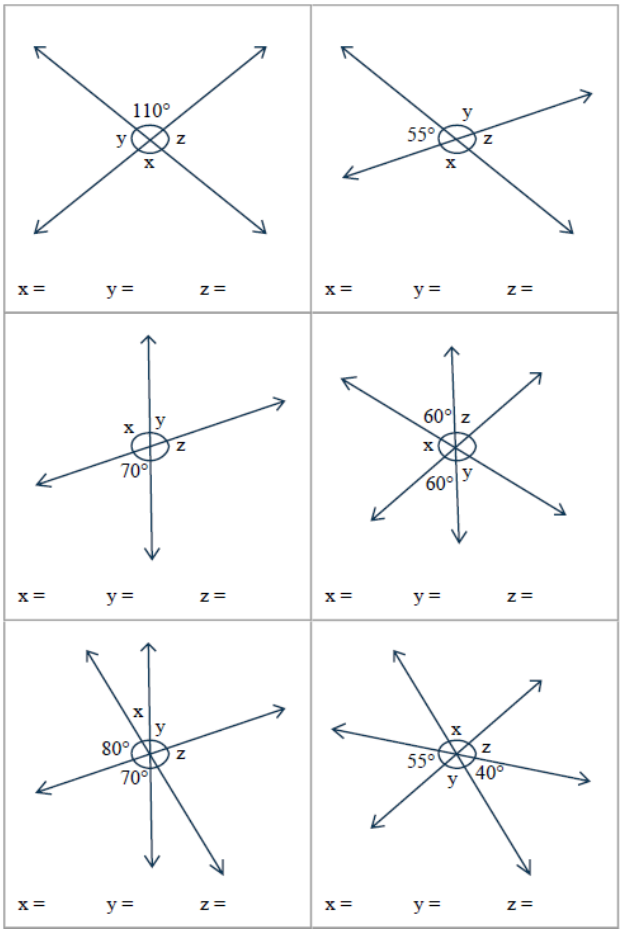


Find the missing angles where AB is a straight line.

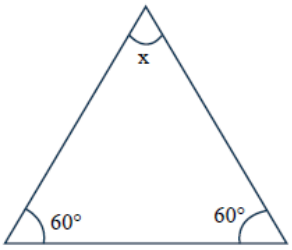








Find the missing angle in the below triangles.



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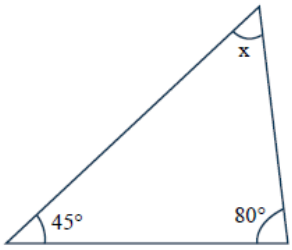

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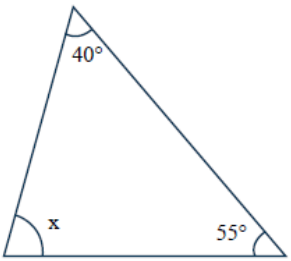

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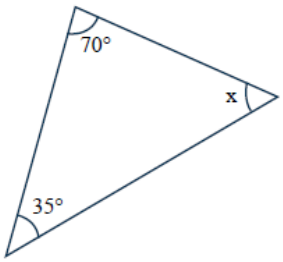

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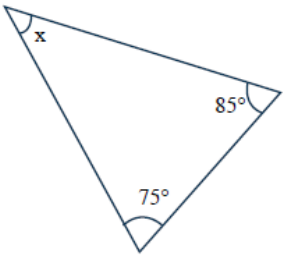

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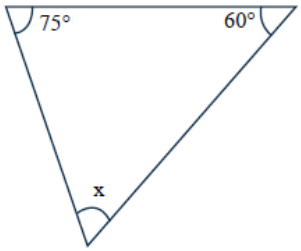

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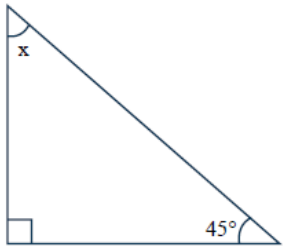
Find the missing angle in the below right triangles.



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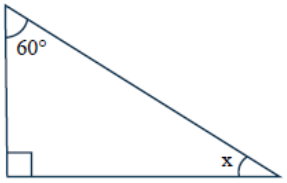

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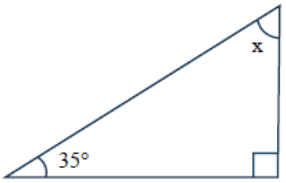

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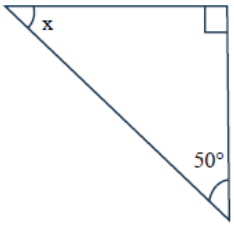

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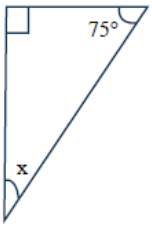

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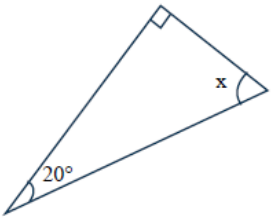
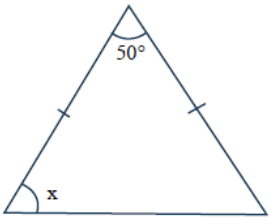


x =

Find the missing angles in the below isosceles triangles.



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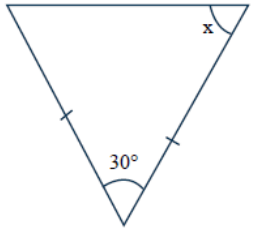

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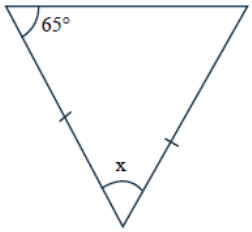

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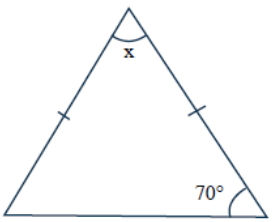

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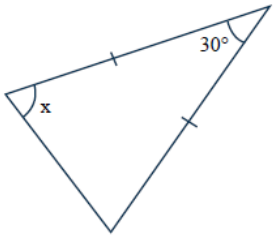

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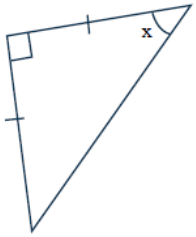
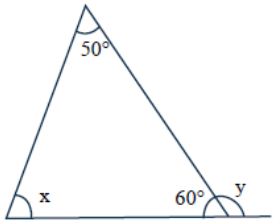


x =

Find the missing angles in the below triangles having external angles



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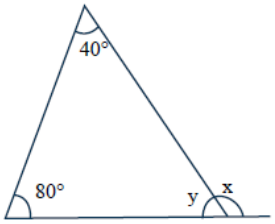

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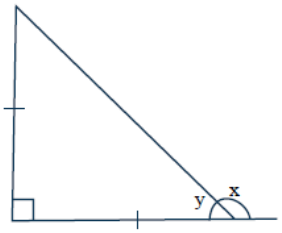

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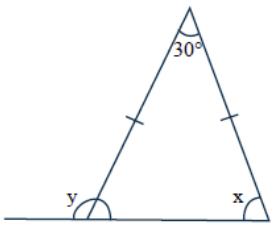

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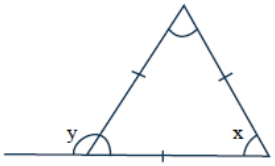

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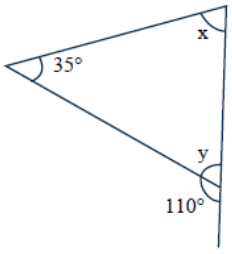

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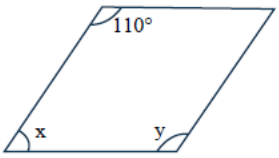
Find the missing angles in the below parallelograms.



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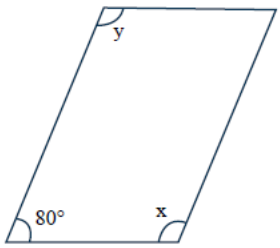

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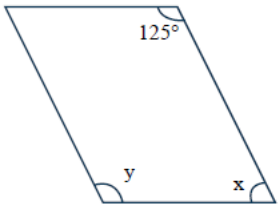

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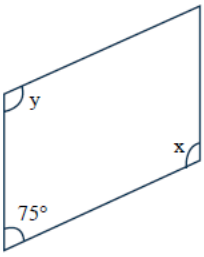

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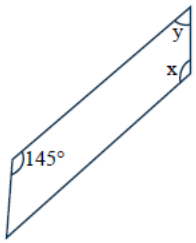

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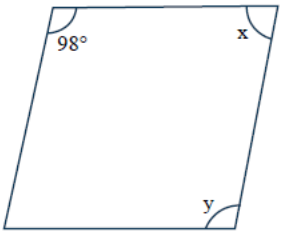

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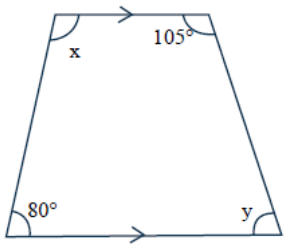
Find the missing angles in the below trapeziums.



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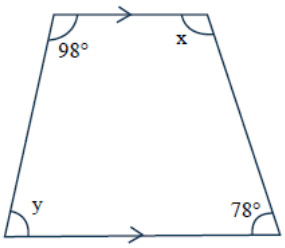

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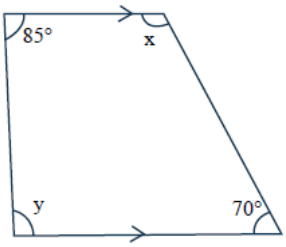

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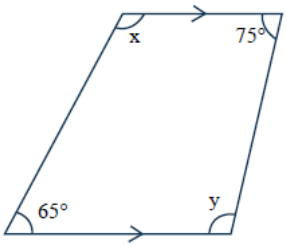
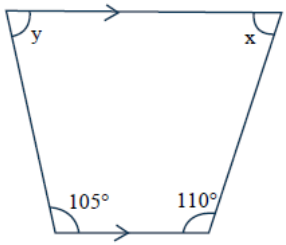
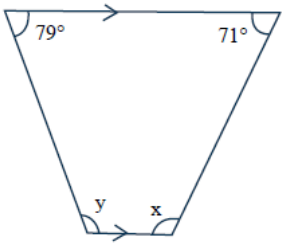


x = y =

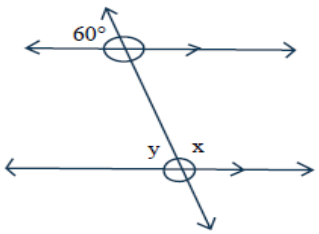


x = y =

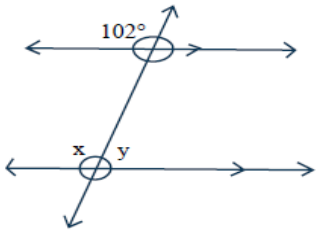


x = y =

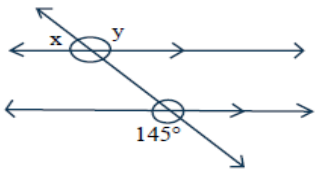
Find the missing angles in the below figures, where 2 of the lines are parallel.



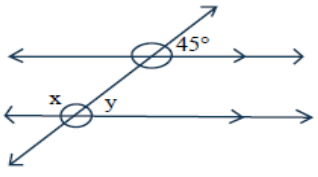
x = y =



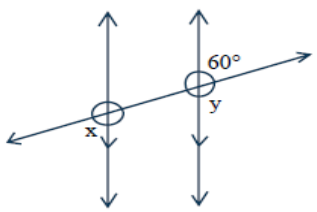
x = y =



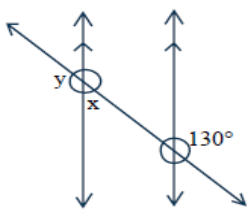
x = y =



x = y =

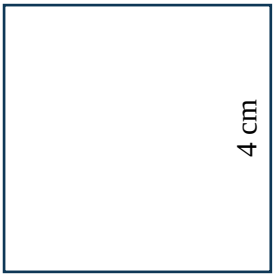


x = y =

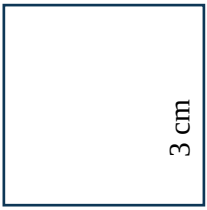


x = y =

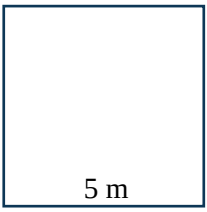
Sides of squares are given. Find area (A) and perimeter(P).



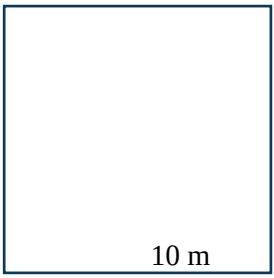
A = P =



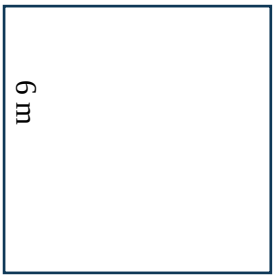
A = P =



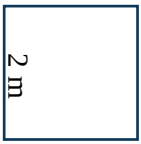
A = P =



A = P =

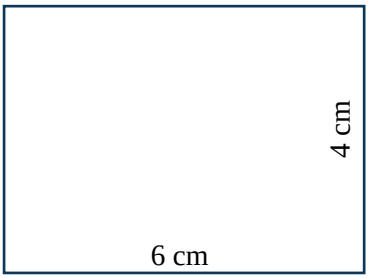


A = P =

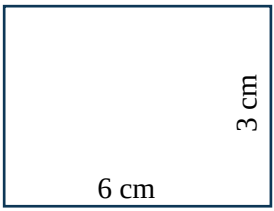


A = P =

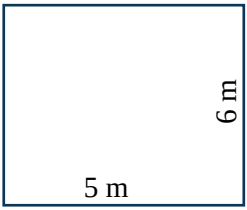
Lengths and breadths of rectangles are given. Find area (A) and perimeter(P).



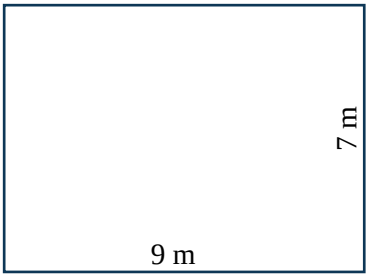
A = P =



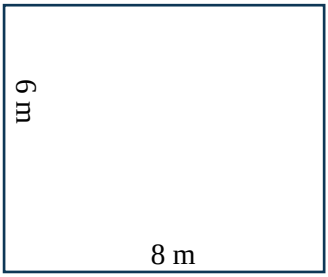
A = P =



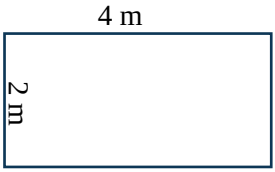
A = P =



A = P =

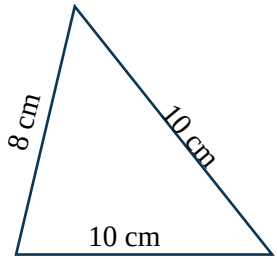


A = P =

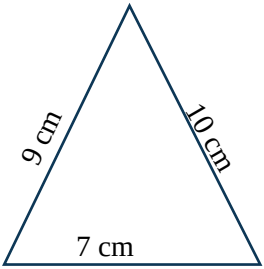


A = P =

Find the perimeter of the below triangles.



P =



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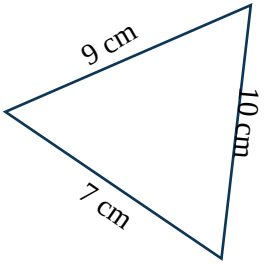
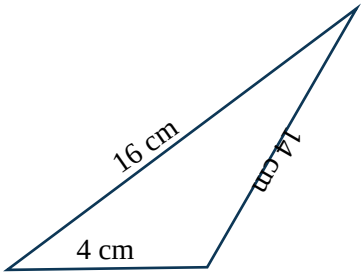


P =



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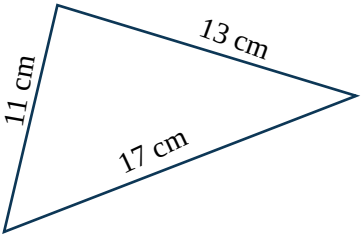
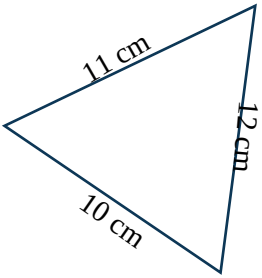
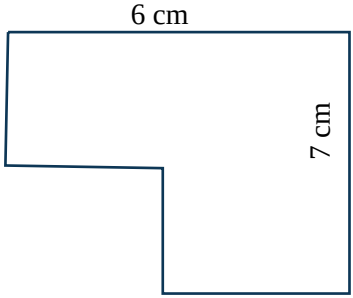


P =

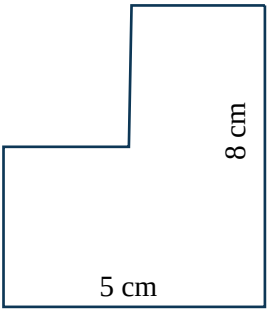


P =

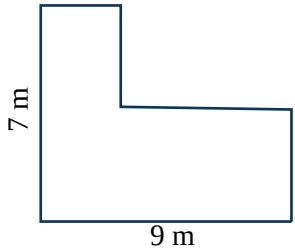
Find the perimeter of the below closed shapes where all angles are 90°



P =



P =



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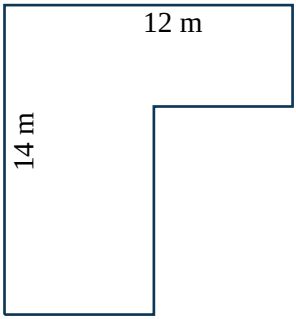

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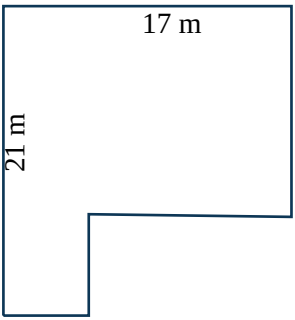

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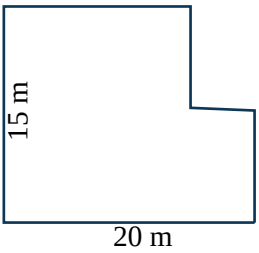
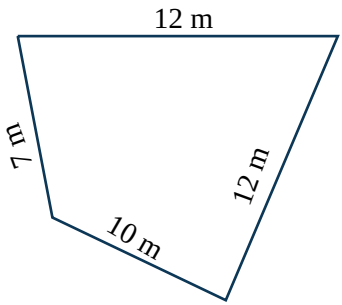


P =

Find the perimeter of the below quadrilaterals.



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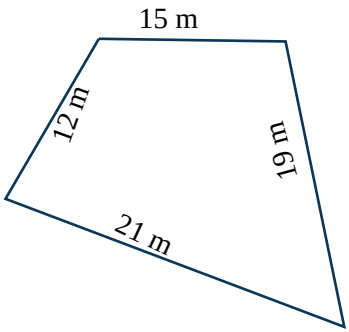
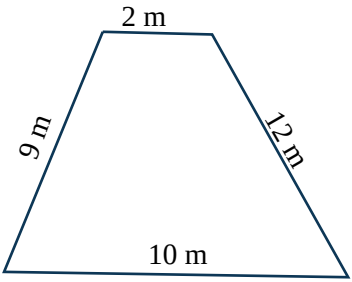
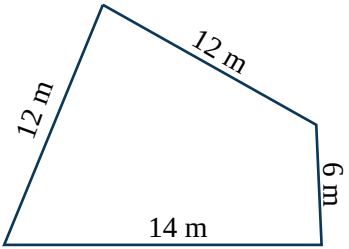


P =



P =



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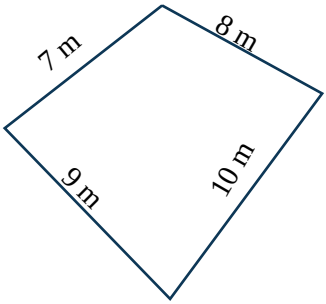

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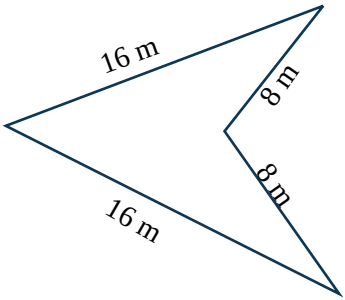
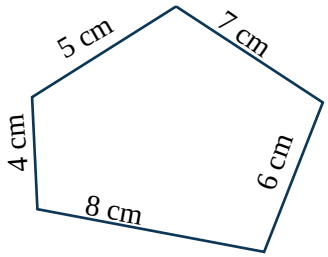
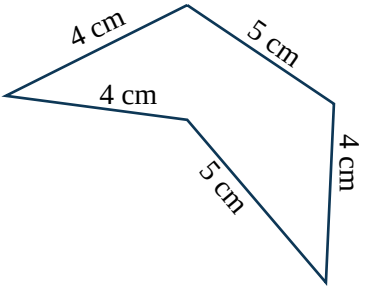


P =

Find the perimeter of the below polygons.



P =



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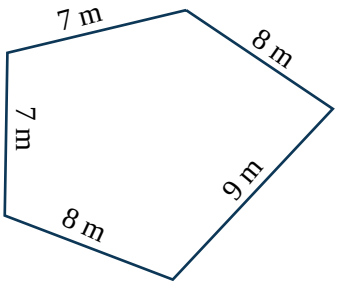

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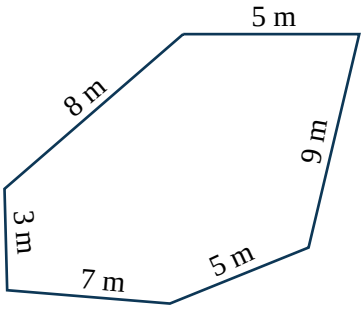

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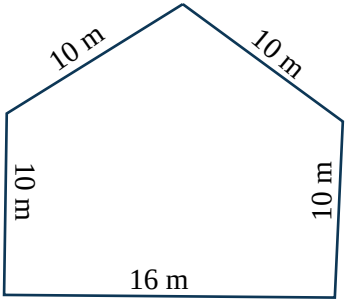

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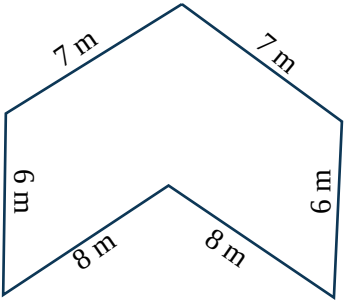
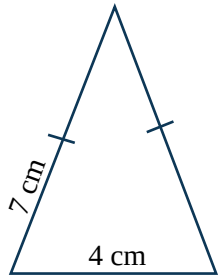
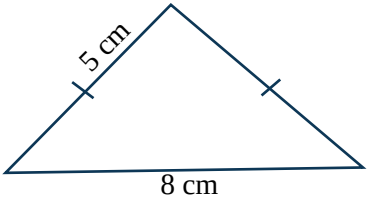


P =

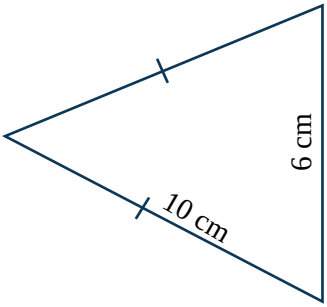
Find the perimeter of the below isosceles triangles.



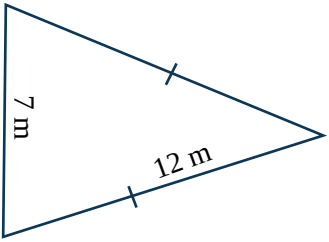
P =



P =



P =



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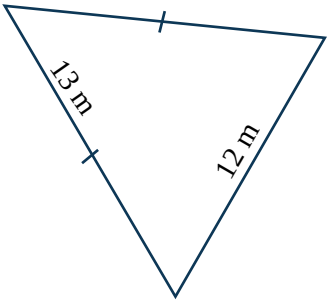

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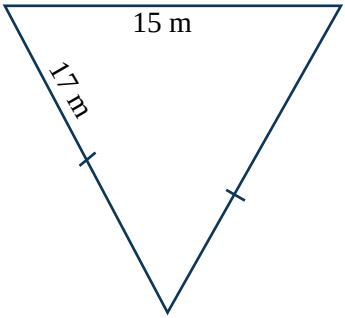
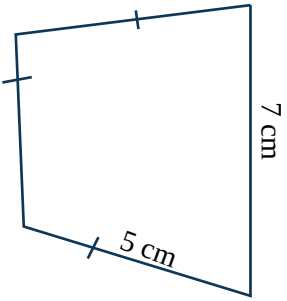


P =

Find the perimeter of the below polygons.



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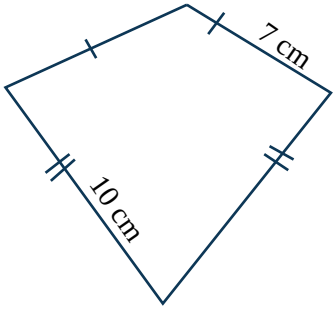
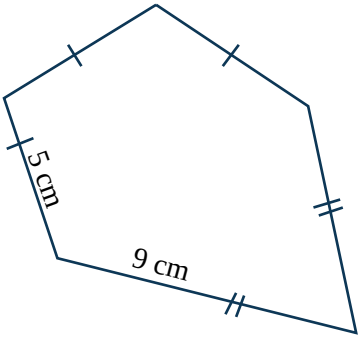


P =



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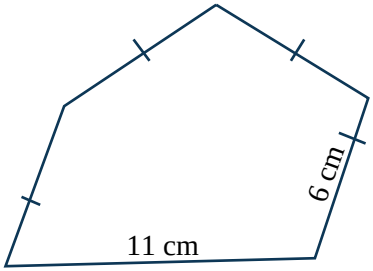

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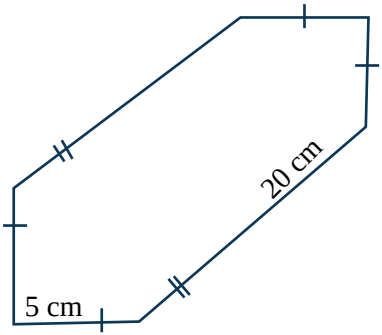

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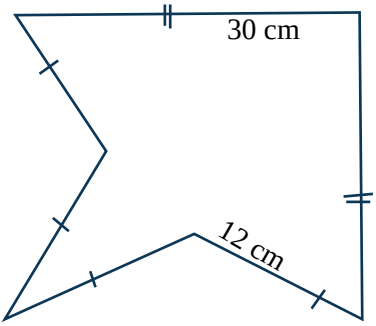
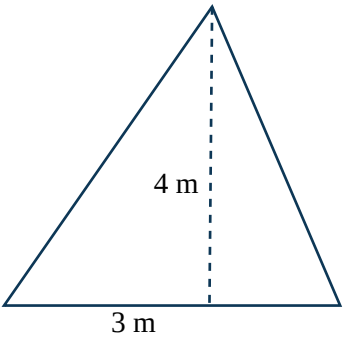
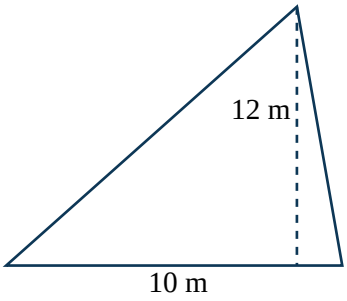


P =

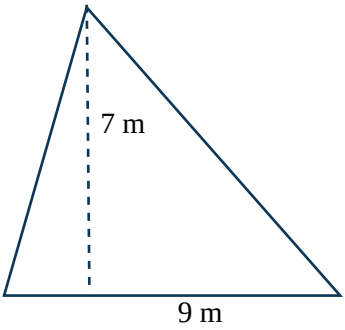
Find the area of the triangles whose base and height are given.



A =



A =



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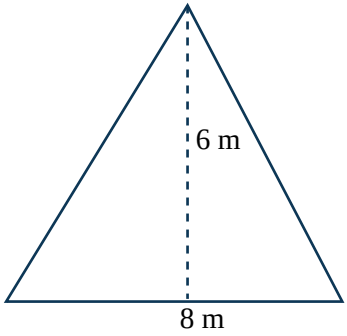

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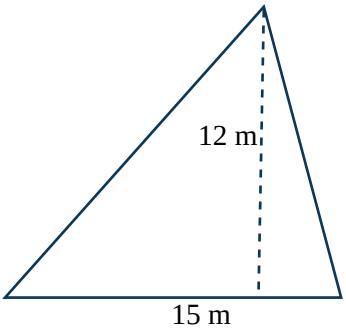

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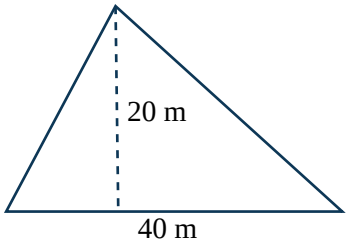

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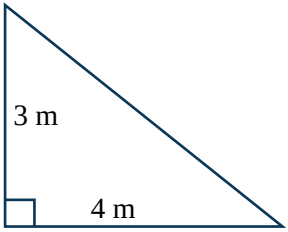
Find the area of the below right triangles.



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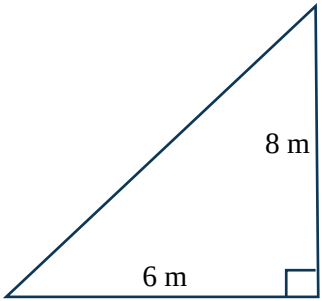

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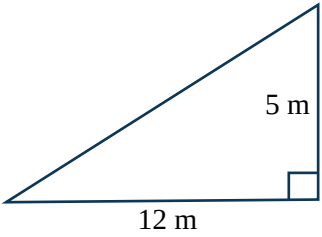

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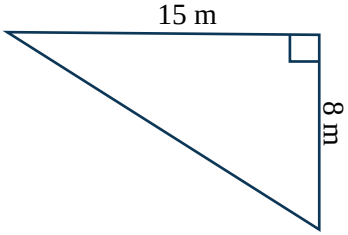

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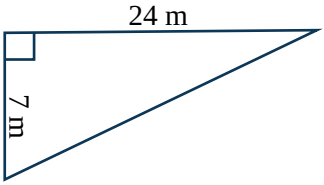

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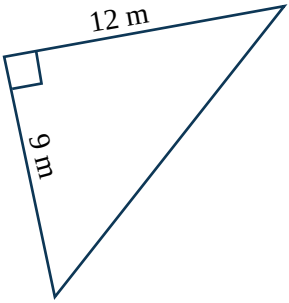

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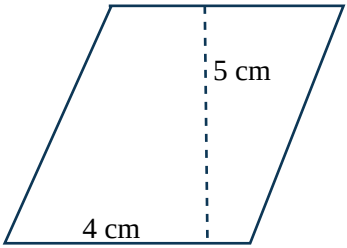
Find the area of the below parallelograms whose base and height are given.



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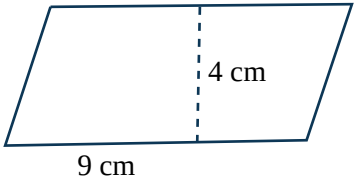

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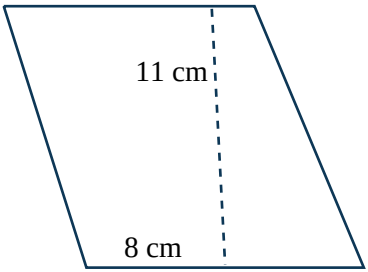

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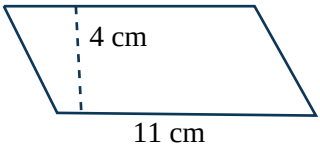

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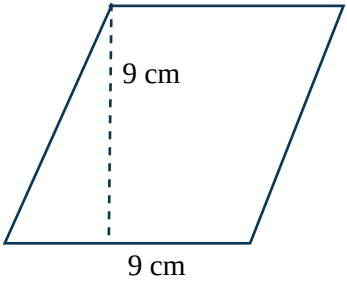

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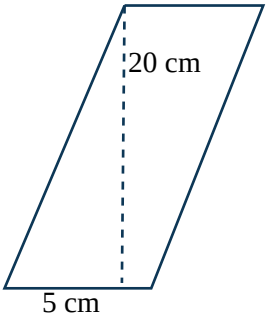

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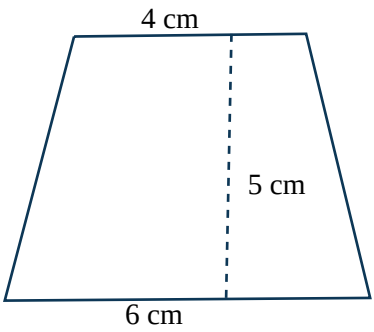
Find the area of the below trapeziums whose height and parallel sides are given.



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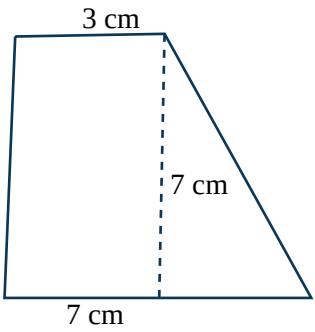

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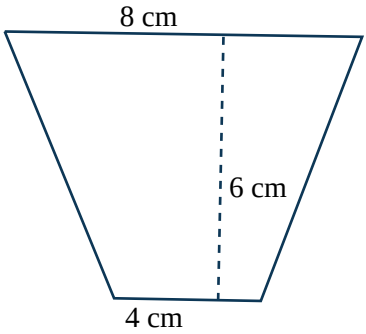

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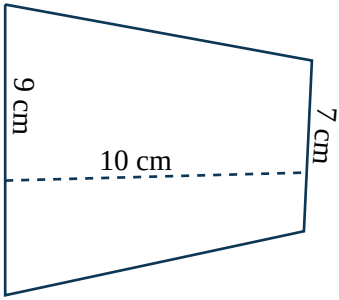

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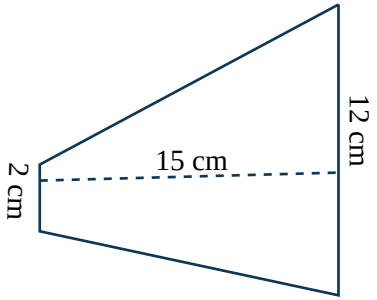

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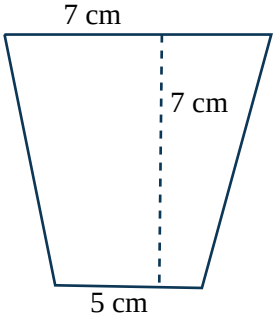

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Swami Vivekananda's Inspirational Quotes

- *"Talk to yourself in a day, otherwise you may miss meeting an intelligent person in this world."*
- *"You cannot believe in God until you believe in yourself."*
- *"You have to grow from the inside out. None can teach you, none can make you spiritual. There is no other teacher but your own soul."*
- *"We are what our thoughts have made us; so take care about what you think. Words are secondary. Thoughts live; they travel far."*
- *"Truth can be stated in a thousand different ways, yet each one can be true."*
- *"Arise! Awake! And stop not until the goal is reached."*
- *"Books are infinite in number and time is short. The secret of knowledge is to take what is essential. Take that and try to live up to it."*
- *"Ask nothing; want nothing in return. Give what you have to give; it will come back to you but do not think of that now."*
- *"Never think there is anything impossible for the soul. It is the greatest heresy to think so. If there is sin, this is the only sin; to say that you are weak, or others are weak."*
- *"That man has reached immortality who is disturbed by nothing material."*
- *"Our duty is to encourage everyone in his struggle to live up to his own highest idea, and strive at the same time to make the ideal as near as possible to the Truth."*
- *"All the powers in the universe are already ours. It is we who have put our hands before our eyes and cry that it is dark."*

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