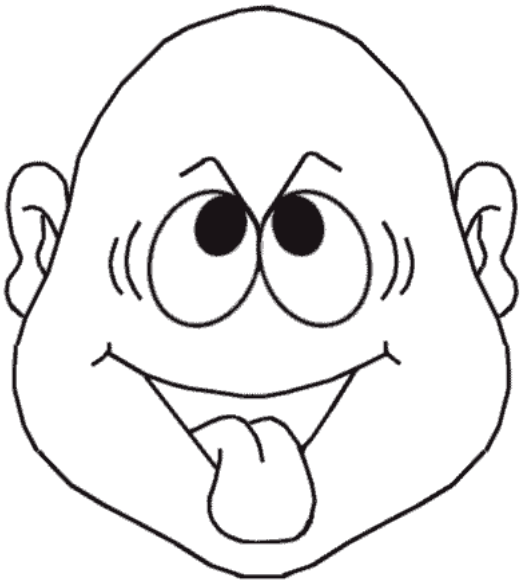
Mathematics Skill Booklet

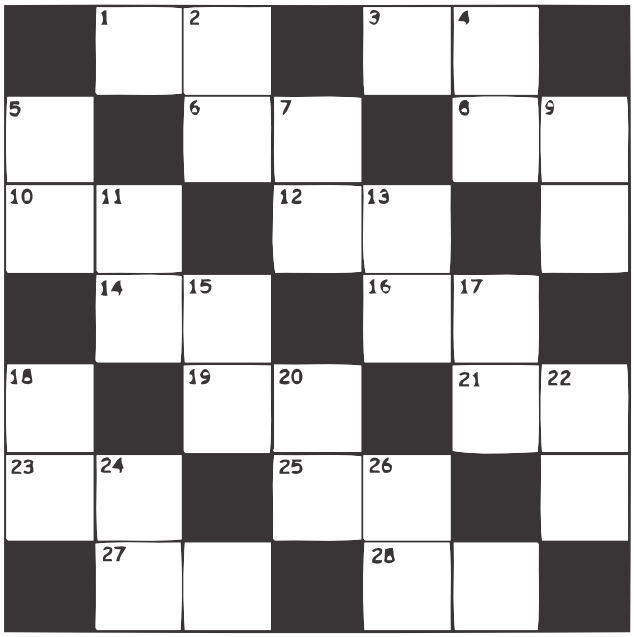
KS3 (1)

Calculate



13 + 9	44 + 18	24 + 18		
53 + 39	52 + 10	41 + 21		
16 + 36	73 + 19	26 + 26	27 + 45	18 + 44
34 + 28	44 + 48	15 + 77	42 + 20	19 + 23
30 + 22	43 + 29	54 + 18	25 + 37	72 + 20
55 + 17	44 + 28	41 + 11	87 + 5	23 + 49

Time to have some fun now and solve this crossword puzzle!



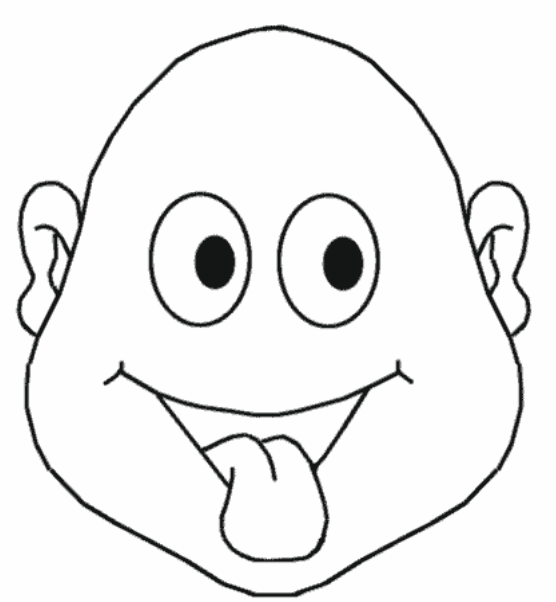
Across

1. 25 + 48
3. 46 + 16
6. 69 + 15
8. 18 + 56
10. 14 + 5
12. 39 + 17
14. 29 + 17
16. 18 + 18
19. 7 + 18
21. 25 + 50
23. 9 + 77
25. 14 + 31
27. 28 + 21
28. 12 + 25

Down

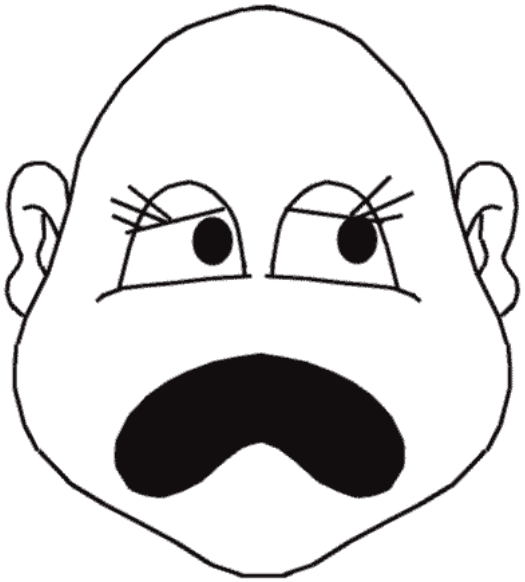
2. 15 + 23
4. 8 + 19
5. 53 + 18
7. 28 + 17
9. 25 + 15
11. 87 + 7
13. 56 + 7
15. 24 + 38
17. 8 + 59
18. 12 + 26
20. 5 + 49
22. 12 + 46
24. 29 + 35
26. 37 + 16

Calculate



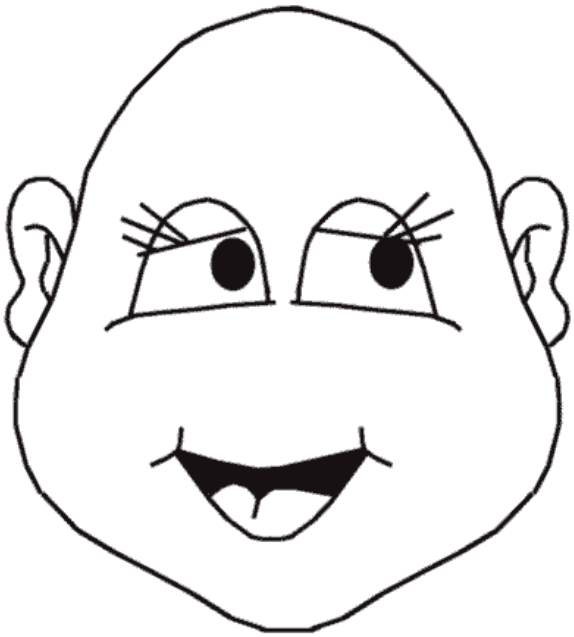
42 - 6	81 - 15	35 - 19		
56 - 20	78 - 2	61 - 15		
77 - 31	40 - 14	84 - 28	90 - 44	64 - 39
32 - 26	54 - 28	75 - 19	41 - 15	89 - 23
31 - 5	43 - 27	54 - 18	88 - 42	72 - 16
65 - 19	44 - 28	53 - 17	87 - 1	90 - 24

Calculate



35 - 16	43 - 24	35 - 16		
66 - 27	78 - 9	40 - 11		
67 - 38	83 - 14	87 - 28	90 - 41	62 - 33
43 - 24	64 - 15	75 - 16	44 - 25	89 - 20
52 - 3	60 - 21	54 - 25	88 - 49	72 - 13
45 - 16	46 - 27	53 - 14	87 - 28	90 - 21

Can you fill in the missing addends?



(1) 12 + ☐ = 17

(2) 45 + ☐ = 53

(3) 8 + ☐ = 13

(4) 11 + ☐ = 20

(5) 23 + ☐ = 27

(6) 16 + ☐ = 22

(7) 16 + ☐ = 19

(8) 10 + ☐ = 17

(9) 22 + ☐ = 31

(10) 29 + ☐ = 36

(11) 11 + ☐ = 17

(12) 17 + ☐ = 25

(13) 15 + ☐ = 24

(14) 14 + ☐ = 23

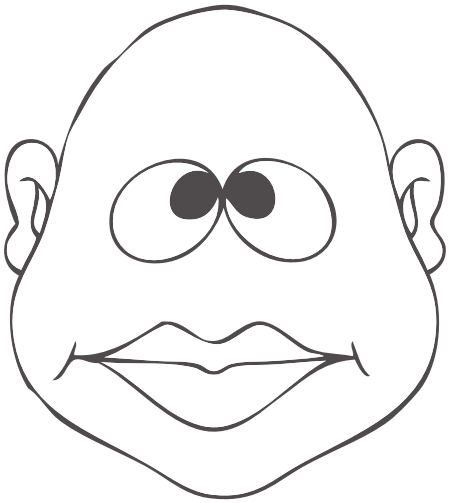
(15) 25 + ☐ = 34

(16) 32 + ☐ = 40

(17) 17 + ☐ = 23

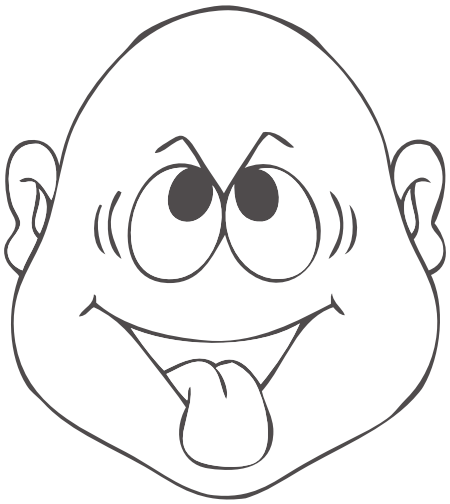
(18) 12 + ☐ = 17

Calculate



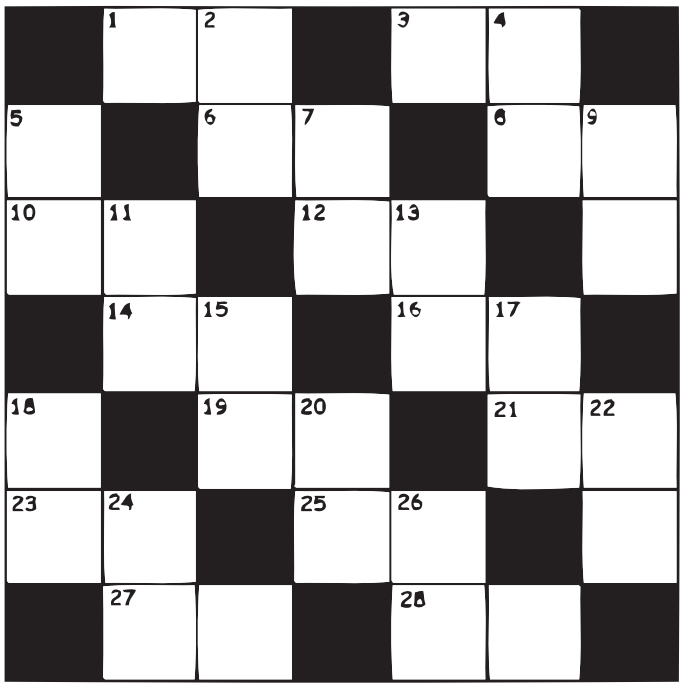
4 x 6 =	9 x 3 =	
3 x 8 =	1 x 4 =	
4 x 5 =	6 x 3 =	
7 x 4 =	3 x 4 =	
4 x 9 =	6 x 10 =	8 x 5 =
10 x 3 =	5 x 6 =	7 x 2 =
3 x 3 =	5 x 3 =	6 x 7 =
9 x 5 =	8 x 8 =	7 x 8 =
10 x 9 =	1 x 3 =	6 x 4 =
9 x 9 =	5 x 10 =	2 x 2 =
5 x 7 =	6 x 9 =	0 x 6 =
3 x 7 =	6 x 8 =	4 x 8 =

Calculate



27 ÷ 3 =	21 ÷ 3 =	
15 ÷ 5 =	81 ÷ 9 =	
24 ÷ 6 =	16 ÷ 4 =	
42 ÷ 7 =	6 ÷ 3 =	
32 ÷ 4 =	40 ÷ 10 =	30 ÷ 6 =
50 ÷ 10 =	9 ÷ 3 =	32 ÷ 4 =
72 ÷ 9 =	18 ÷ 3 =	10 ÷ 5 =
36 ÷ 4 =	35 ÷ 7 =	12 ÷ 6 =
50 ÷ 10 =	20 ÷ 4 =	20 ÷ 2 =
12 ÷ 6 =	72 ÷ 9 =	20 ÷ 10 =
30 ÷ 5 =	63 ÷ 9 =	48 ÷ 6 =
28 ÷ 7 =	45 ÷ 5 =	64 ÷ 8 =

Now it's time to test your skills by solving this crossword puzzle!



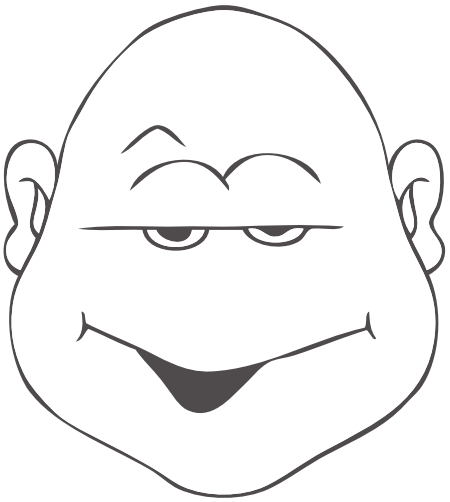
Across

1. 3 x 7 =
3. 4 x 8 =
6. 9 x 9 =
8. 9 x 5 =
10. 2 x 8 =
12. 6 x 9 =
14. 6 x 7 =
16. 5 x 5 =
19. 9 x 9 =
21. 8 x 8 =
23. 6 x 8 =
25. 4 x 6 =
27. 3 x 6 =
28. 5 x 4 =

Down

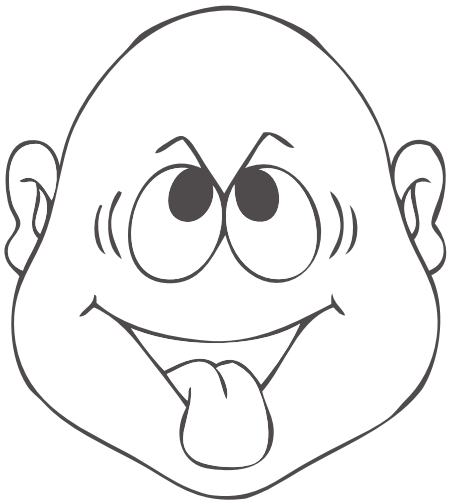
2. 7 x 3 =
4. 3 x 8 =
5. 3 x 7 =
7. 5 x 3 =
9. 7 x 8 =
11. 8 x 8 =
13. 7 x 6 =
15. 4 x 7 =
17. 8 x 7 =
18. 2 x 7 =
20. 3 x 4 =
22. 6 x 8 =
24. 9 x 9 =
26. 7 x 6 =

Fill in the missing numbers



4 x = 20	9 x 7 = 63	
7 x = 42	3 x = 6	
4 x = 36	6 x = 18	
7 x = 21	9 x = 18	
3 x = 18	8 x = 80	8 x = 16
10 x = 20	5 x = 35	5 x = 15
4 x = 8	5 x = 40	6 x = 30
9 x = 72	8 x = 64	7 x = 28
10 x = 40	7 x = 0	6 x = 18
8 x = 48	3 x = 30	1 x = 6
6 x = 54	7 x = 49	0 x = 0
3 x = 24	6 x = 36	4 x = 24

Fill in the missing numbers

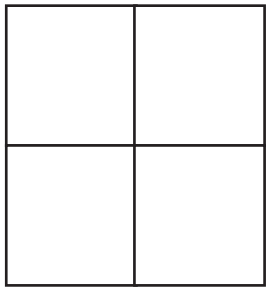


25 ÷ = 5	27 ÷ = 9	
15 ÷ = 3	81 ÷ = 9	
36 ÷ = 6	16 ÷ = 4	
42 ÷ = 6	6 ÷ = 2	
36 ÷ = 6	20 ÷ = 2	30 ÷ = 5
50 ÷ = 5	9 ÷ = 3	32 ÷ = 8
72 ÷ = 8	18 ÷ = 6	10 ÷ = 2
16 ÷ = 8	49 ÷ = 7	24 ÷ = 4
80 ÷ = 8	32 ÷ = 8	12 ÷ = 6
18 ÷ = 9	81 ÷ = 9	90 ÷ = 9
35 ÷ = 5	56 ÷ = 8	56 ÷ = 7
14 ÷ = 7	54 ÷ = 6	64 ÷ = 8

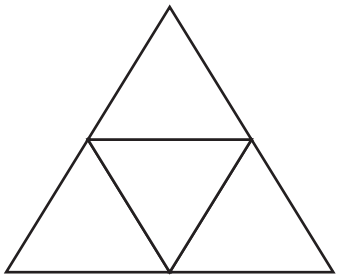
Fill in the missing numbers

÷ 5 = 6	÷ 3 = 9	
÷ 5 = 4	÷ 9 = 9	
÷ 6 = 7	÷ 4 = 4	
÷ 7 = 7	÷ 3 = 2	
÷ 6 = 5	÷ 10 = 2	÷ 6 = 5
÷ 10 = 5	÷ 3 = 3	÷ 4 = 8
÷ 9 = 8	÷ 3 = 6	÷ 5 = 2
÷ 2 = 8	÷ 7 = 7	÷ 6 = 4
÷ 10 = 8	÷ 4 = 8	÷ 2 = 6
÷ 2 = 9	÷ 9 = 9	÷ 10 = 9
÷ 7 = 5	÷ 7 = 8	÷ 8 = 7
÷ 2 = 7	÷ 9 = 6	÷ 8 = 8

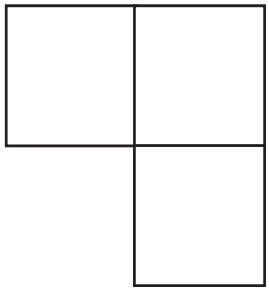
Color parts of each shape



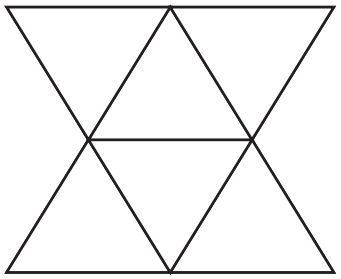
Color $\frac{1}{4}$



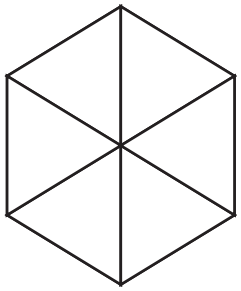
Color $\frac{1}{4}$



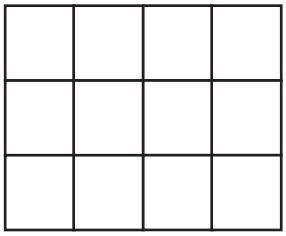
Color $\frac{1}{3}$



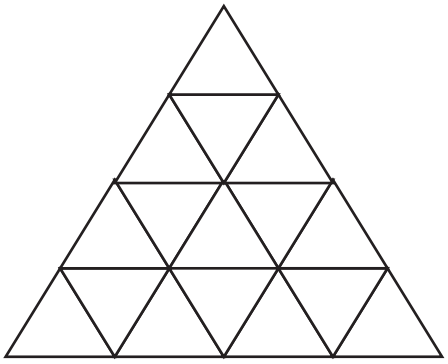
Color $\frac{3}{6}$



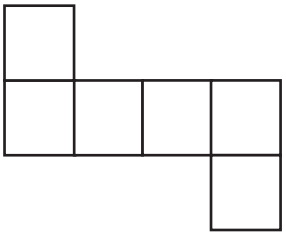
Color $\frac{1}{6}$



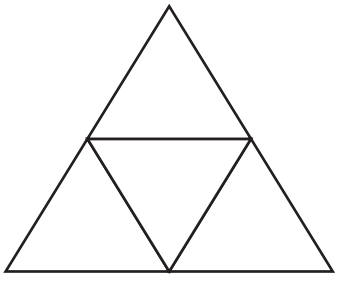
Color $\frac{5}{12}$



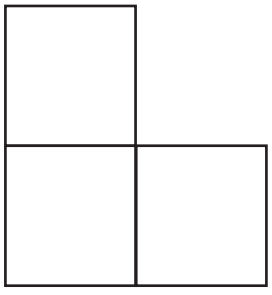
Color $\frac{9}{16}$



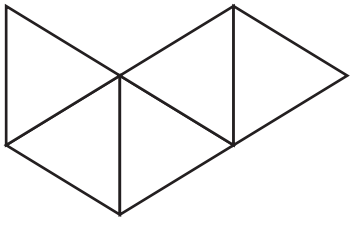
Color $\frac{2}{6}$



Color $\frac{3}{4}$



Color $\frac{2}{3}$



Color $\frac{4}{5}$

What fraction of each shape is shaded?

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

Compare the following fractions by using > or <.

$\frac{2}{3} \bigcirc \frac{1}{3}$ $\frac{3}{4} \bigcirc \frac{2}{4}$

$\frac{2}{4} \bigcirc \frac{1}{4}$ $\frac{1}{2} \bigcirc \frac{1}{3}$ $\frac{3}{6} \bigcirc \frac{5}{6}$

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

$\frac{2}{5} \bigcirc \frac{2}{10}$ $\frac{3}{7} \bigcirc \frac{3}{6}$ $\frac{1}{3} \bigcirc \frac{1}{9}$

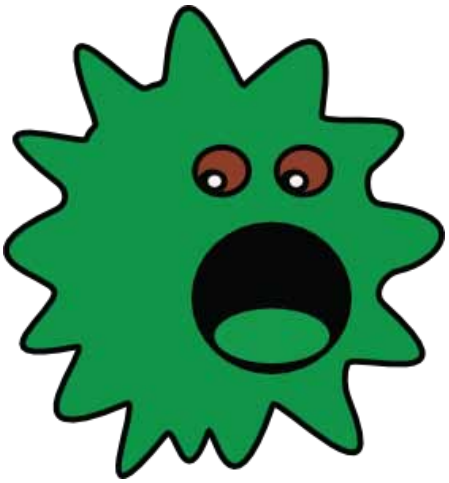
$\frac{2}{4} \bigcirc \frac{2}{5}$ $\frac{1}{5} \bigcirc \frac{1}{4}$ $\frac{3}{6} \bigcirc \frac{3}{4}$

$\frac{1}{9} \bigcirc \frac{1}{3}$ $\frac{6}{9} \bigcirc \frac{5}{9}$ $\frac{1}{3} \bigcirc \frac{1}{2}$

$\frac{1}{3} \bigcirc \frac{0}{3}$ $\frac{5}{4} \bigcirc \frac{5}{8}$ $\frac{2}{6} \bigcirc \frac{2}{3}$

$\frac{1}{7} \bigcirc \frac{1}{6}$ $\frac{2}{4} \bigcirc \frac{2}{3}$ $\frac{2}{4} \bigcirc \frac{2}{5}$

Add and subtract the following fractions



$\frac{5}{8} + \frac{1}{8} =$

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

$\frac{3}{6} + \frac{1}{6} =$

$\frac{4}{9} + \frac{1}{9} =$

$\frac{2}{3} - \frac{1}{3} =$

$\frac{4}{8} - \frac{1}{8} =$

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

$\frac{3}{8} + \frac{1}{8} =$

$\frac{9}{6} - \frac{1}{6} =$

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

$\frac{1}{4} - \frac{1}{4} =$

$\frac{1}{8} + \frac{1}{8} =$

$\frac{4}{5} - \frac{1}{5} =$

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

$\frac{1}{2} - \frac{1}{2} =$

$\frac{3}{5} + \frac{1}{5} =$

$\frac{6}{9} - \frac{1}{9} =$

$\frac{3}{6} - \frac{1}{6} =$

$\frac{3}{8} - \frac{1}{8} =$

$\frac{4}{9} + \frac{4}{9} =$

$\frac{2}{6} + \frac{1}{6} =$

$\frac{4}{9} - \frac{1}{9} =$

$\frac{5}{8} - \frac{2}{8} =$

$\frac{3}{5} + \frac{1}{5} =$

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

$\frac{5}{6} - \frac{1}{6} =$

$\frac{4}{7} - \frac{3}{7} =$

Order the following fractions from the smallest to the biggest!

$\frac{1}{8}$, $\frac{1}{2}$, $\frac{1}{4}$ _____

$\frac{5}{8}$, $\frac{5}{6}$, $\frac{5}{7}$ _____

$\frac{2}{4}$, $\frac{1}{4}$, $\frac{3}{4}$ _____

$\frac{2}{3}$, $\frac{2}{2}$, $\frac{2}{4}$ _____

$\frac{5}{6}$, $\frac{1}{6}$, $\frac{3}{6}$ _____

$\frac{1}{5}$, $\frac{2}{5}$, $\frac{0}{5}$ _____

Order the following fractions from the biggest to the smallest!

$\frac{1}{8}$, $\frac{5}{8}$, $\frac{2}{8}$ _____

$\frac{2}{3}$, $\frac{5}{3}$, $\frac{1}{3}$ _____

$\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{1}$ _____

$\frac{2}{4}$, $\frac{2}{5}$, $\frac{2}{3}$ _____

$\frac{5}{4}$, $\frac{3}{4}$, $\frac{2}{4}$ _____

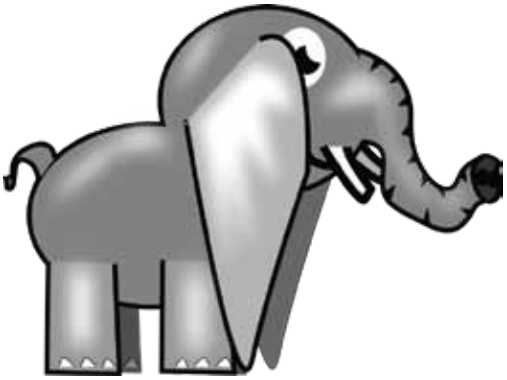
$\frac{5}{9}$, $\frac{5}{8}$, $\frac{5}{6}$ _____

$\frac{4}{6}$, $\frac{4}{7}$, $\frac{4}{5}$ _____

$\frac{1}{3}$, $\frac{0}{2}$, $\frac{1}{4}$ _____

Add the following numbers!

88 34 +17	44 24 +35	78 39 +56		
82 26 +28	17 45 +83	55 66 +77		
23 76 +98	90 23 +45	77 87 +11	56 43 +29	67 46 +69
33 44 +55	99 88 +77	84 57 +62	32 98 +44	44 56 +67
41 88 +76	54 98 +73	54 66 +81	40 85 +43	81 28 +38
34 55 +52	87 92 +35	66 32 +56	89 90 +12	82 44 +56



Calculate

4 x 7 + 12 =	6 x 5 + 46 =	
2 x 4 + 15 =	9 x 2 + 33 =	
5 x 5 + 22 =	2 x 7 + 25 =	
2 x 3 + 65 =	6 x 8 + 41 =	4 x 8 + 32 =
3 x 5 + 45 =	8 x 3 + 41 =	6 x 7 + 17 =
5 x 4 + 37 =	3 x 7 + 55 =	4 x 7 + 55 =
6 x 3 + 31 =	6 x 6 + 32 =	7 x 2 + 33 =
4 x 9 + 25 =	5 x 3 + 34 =	8 x 3 + 22 =
4 x 4 + 35 =	5 x 7 + 12 =	5 x 8 + 44 =
3 x 2 + 77 =	3 x 8 + 19 =	3 x 9 + 37 =
6 x 5 + 57 =	2 x 9 + 54 =	4 x 2 + 88 =

Calculate

$45 \div 5 + 23 =$	$24 \div 3 + 76 =$	
$36 \div 6 + 37 =$	$45 \div 9 + 27 =$	
$42 \div 7 + 55 =$	$21 \div 3 + 56 =$	
$54 \div 9 + 35 =$	$32 \div 4 + 43 =$	$45 \div 9 + 82 =$
$40 \div 8 + 47 =$	$18 \div 3 + 55 =$	$35 \div 7 + 91 =$
$25 \div 5 + 24 =$	$72 \div 9 + 67 =$	$15 \div 5 + 66 =$
$28 \div 4 + 87 =$	$64 \div 8 + 13 =$	$32 \div 8 + 25 =$
$48 \div 6 + 38 =$	$24 \div 6 + 54 =$	$48 \div 8 + 81 =$
$81 \div 9 + 41 =$	$42 \div 7 + 57 =$	$40 \div 5 + 66 =$
$18 \div 3 + 29 =$	$16 \div 8 + 15 =$	$56 \div 8 + 53 =$
$30 \div 5 + 33 =$	$12 \div 4 + 42 =$	$45 \div 9 + 72 =$

Calculate

2 x 3 x 2 =	2 x 4 x 2 =	
2 x 2 x 3=	2 x 3 x 4 =	
3 x 3 x 2 =	5 x 3 x 2 =	
2 x 2 x 6 =	2 x 3 x 4 =	5 x 6 x 2 =
2 x 6 x 3 =	4 x 3 x 3 =	2 x 9 x 0 =
3 x 3 x 3 =	1 x 2 x 3 =	4 x 3 x 4 =
2 x 3 x 5 =	1 x 3 x 9 =	5 x 4 x 4 =
2 x 3 x 6 =	2 x 9 x 3 =	2 x 5 x 5 =
2 x 3 x 8 =	2 x 1 x 7 =	4 x 3 x 7 =
2 x 3 x 6 =	9 x 3 x 0 =	4 x 3 x 3 =
2 x 6 x 2 =	8 x 3 x 1 =	2 x 3 x 0 =

Rounding off to the nearest ten

Round the following numbers off to the nearest ten

115 _____ 50 _____

14 _____ 31 _____

65 _____ 467 _____

134 _____ 92 _____ 228 _____

237 _____ 135 _____ 118 _____

23 _____ 299 _____ 34 _____

44 _____ 1 _____ 679 _____

3 _____ 40 _____ 999 _____

102 _____ 301 _____ 85 _____

205 _____ 89 _____ 200 _____

333 _____ 15 _____ 155 _____

99 _____ 499 _____ 55 _____

Round the following numbers off to the nearest hundred

750 _____	249 _____	
1,214 _____	1,549 _____	
65 _____	23 _____	
980 _____	750 _____	749 _____
460 _____	230 _____	830 _____
3,202 _____	6,879 _____	3,098 _____
44 _____	79 _____	14 _____
2,229 _____	5,766 _____	5,102 _____
102 _____	333 _____	192 _____
876 _____	245 _____	257 _____
4,251 _____	9,949 _____	4,099 _____
299 _____	309 _____	125 _____

Complete the table

	Round of the nearest:		
Number	Ten	Hundred	Thousand
345			
1,245			
99			
9,987			
4,560			
749			
3,456			
301			
9			
999			
5,761			
4,098			
3,987			
51			
4,049			

Find the factors of the following numbers:

18 _____

25 _____

16 _____

20 _____

15 _____

28 _____

35 _____

42 _____

39 _____

45 _____

63 _____

21 _____

45 _____

64 _____

12 _____

10 _____

40 _____

32 _____

24 _____

100 _____

22 _____

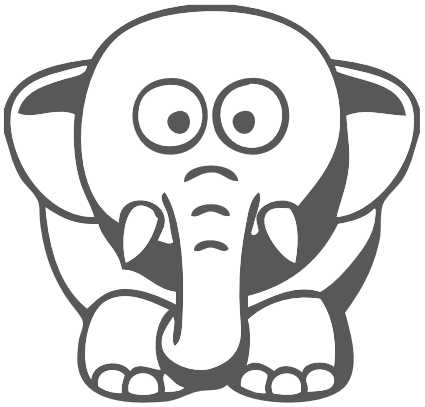
50 _____

Mixed multiplication and addition

Calculate

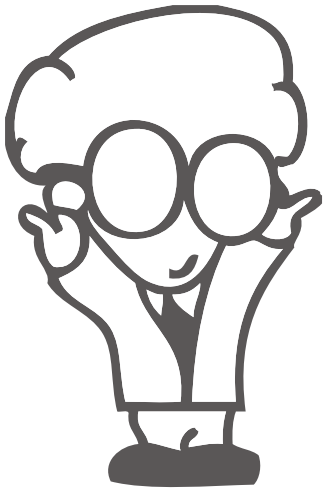
6 x 18 + 125 =	4 x 66 + 305 =	
4 x 23 + 115 =	7 x 54 + 109 =	
2 x 45 + 223 =	9 x 21 + 154 =	7 x 22 + 678 =
8 x 37 + 207 =	3 x 19 + 432 =	6 x 16 + 432 =
3 x 16 + 432 =	5 x 40 + 700 =	8 x 11 + 789 =
8 x 22 + 671 =	4 x 13 + 327 =	9 x 25 + 145 =
5 x 25 + 436 =	2 x 17 + 675 =	5 x 12 + 456 =
7 x 30 + 332 =	6 x 21 + 335 =	4 x 18 + 765 =
3 x 30 + 456 =	5 x 54 + 543 =	3 x 15 + 123 =
6 x 13 + 765 =	4 x 66 + 222 =	6 x 14 + 105 =
2 x 26 + 312 =	7 x 32 + 580 =	5 x 25 + 135 =
9 x 14 + 109 =	6 x 11 + 654 =	2 x 19 + 477 =

Simplify the following fractions (lowest terms)



$\frac{2}{6} =$	$\frac{2}{10} =$	$\frac{4}{6} =$	
$\frac{4}{8} =$	$\frac{3}{9} =$	$\frac{2}{14} =$	
$\frac{2}{12} =$	$\frac{4}{10} =$	$\frac{6}{9} =$	$\frac{8}{9} =$
$\frac{6}{8} =$	$\frac{10}{12} =$	$\frac{3}{12} =$	$\frac{10}{40} =$
$\frac{6}{10} =$	$\frac{3}{15} =$	$\frac{2}{20} =$	$\frac{10}{15} =$
$\frac{9}{18} =$	$\frac{2}{14} =$	$\frac{5}{25} =$	$\frac{12}{24} =$
$\frac{2}{16} =$	$\frac{2}{22} =$	$\frac{3}{18} =$	$\frac{7}{14} =$
$\frac{10}{30} =$	$\frac{7}{21} =$	$\frac{8}{24} =$	$\frac{4}{24} =$
$\frac{2}{30} =$	$\frac{6}{10} =$	$\frac{7}{28} =$	$\frac{4}{7} =$

Calculate these fractions of sets



$\frac{1}{2}$ of 150 =	$\frac{1}{3}$ of 60 =	
$\frac{1}{3}$ of 75 =	$\frac{1}{4}$ of 80 =	
$\frac{1}{2}$ of 100 =	$\frac{1}{3}$ of 150 =	
$\frac{1}{2}$ of 90 =	$\frac{1}{2}$ of 180 =	$\frac{1}{2}$ of 104 =
$\frac{1}{5}$ of 150 =	$\frac{1}{3}$ of 90 =	$\frac{1}{3}$ of 123 =
$\frac{1}{6}$ of 120 =	$\frac{1}{10}$ of 150 =	$\frac{1}{2}$ of 170 =
$\frac{1}{4}$ of 200 =	$\frac{1}{2}$ of 110 =	$\frac{1}{2}$ of 130 =
$\frac{1}{4}$ of 160 =	$\frac{1}{2}$ of 70 =	$\frac{1}{4}$ of 120 =
$\frac{1}{2}$ of 60 =	$\frac{1}{3}$ of 180 =	$\frac{1}{3}$ of 99 =
$\frac{1}{7}$ of 140 =	$\frac{1}{4}$ of 200 =	$\frac{1}{2}$ of 104 =
$\frac{1}{9}$ of 90 =	$\frac{1}{6}$ of 180 =	$\frac{1}{5}$ of 100 =
$\frac{1}{8}$ of 160 =	$\frac{1}{3}$ of 120 =	$\frac{1}{7}$ of 210 =

Add the following decimal numbers!

2.8 + 12.28 =	7.2 + 1.28 =	
5.2 + 15.8 =	1.5 + 19.99 =	
2.5 + 17.5 =	2.7 + 55.32 =	5.6 + 14.39 =
2.3 + 13.7 =	5 + 16.48 =	9.9 + 14.55 =
9.9 + 11.11 =	2.4 + 24.06 =	5 + 14.99 =
7.2 + 12.78 =	2.1 + 14.11 =	8.8 + 15.01 =
9.9 + 19.99 =	7.5 + 12.45 =	1.2 + 12.22 =
5.8 + 19.2 =	2.9 + 19.28 =	2.1 + 12.99 =
0.8 + 0.28 =	3.1 + 13.11 =	9.8 + 14.31 =

Subtract the following decimal numbers!

9.8 - 8.28 =	7.2 - 1.28 =	
5.2 - 3.8 =	7.5 - 3.99 =	
8.2 - 3.22 =	2.7 - 1.32 =	5.6 - 4.39 =
2.3 - 1.27 =	5 - 3.48 =	9.9 - 4.55 =
9.9 - 2.11 =	2.4 - 2.06 =	5 - 4.99 =
7.2 - 2.78 =	9.1 - 4.11 =	8.8 - 5.01 =
9.9 - 8.99 =	7.5 - 2.45 =	4.2 - 2.22 =
5.8 - 1.2 =	3.9 - 1.28 =	7.1 - 2.99 =
0.7 - 0.28 =	3.1 - 1.22 =	9.8 - 4.31 =