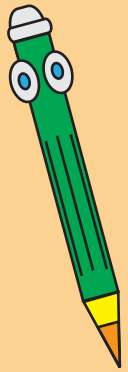
Math in English



Skills X

Exercise Book

Topics:

Factors

Divisibility rules

Multiplication of fractions by decimals

Division of fractions by decimals

Exponents and square roots

Prime factorization

Integers and order of operations

This workbook is made for grade 5 , 6 or even grade 7 students and can be used as supplemental practice material or remedial math learning material.

This workbook covers:

- Factors of numbers up to 325

- Multiplication of fractions by decimals

- Division of fractions by decimals

- Exponents and square roots

- Prime factorization

- Integers (operations with 3 integers)

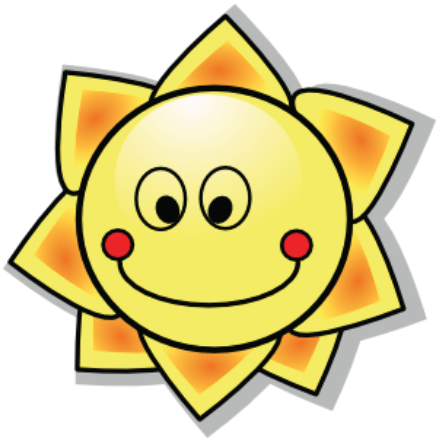
- Order of operations

- Division of 5 digit numbers by 3 digits

This exercise material is excellent practice material for students of any math ability level. It can be used as remedial learning and teaching material or as material for those who need to be challenged more.

Finding factors

Find the factors of the following numbers:



100 _____

80 _____

16 _____

20 _____

75 _____

92 _____

69 _____

88 _____

64 _____

98 _____

118 _____

102 _____

225 _____

113 _____

125 _____

110 _____

145 _____

155 _____

128 _____

195 _____

44 _____

175 _____

Copyright: Math in English

Find the factors of the following numbers:

124 _____

70 _____

26 _____

90 _____

35 _____

96 _____

99 _____

85 _____

65 _____

94 _____

128 _____

156 _____

325 _____

139 _____

126 _____

118 _____

142 _____

122 _____

155 _____

134 _____

48 _____

150 _____

Copyright: Math in English

Multiplying fractions by decimals

Calculate and round your answers off to the nearest tenth

$\frac{1}{3} \times 4.2 =$	$\frac{2}{5} \times 8.5 =$	
$\frac{2}{4} \times 5.3 =$	$\frac{2}{7} \times 9.3 =$	
$\frac{1}{7} \times 9.1 =$	$\frac{1}{3} \times 7.5 =$	$\frac{1}{2} \times 9.3 =$
$\frac{2}{5} \times 4.4 =$	$\frac{1}{4} \times 5.1 =$	$\frac{1}{3} \times 8.8 =$
$\frac{4}{3} \times 4.7 =$	$\frac{1}{2} \times 5.5 =$	$\frac{1}{3} \times 5.5 =$
$\frac{2}{3} \times 11.3 =$	$\frac{1}{6} \times 8.2 =$	$\frac{5}{3} \times 4.9 =$
$\frac{1}{5} \times 9.9 =$	$\frac{1}{7} \times 9.2 =$	$\frac{3}{8} \times 4.3 =$
$\frac{2}{7} \times 4.4 =$	$\frac{1}{6} \times 9.2 =$	$\frac{1}{5} \times 24.2 =$
$\frac{1}{4} \times 39.4 =$	$\frac{6}{7} \times 4.2 =$	$\frac{4}{5} \times 4.7 =$

Copyright: Math in English

Multiplying fractions by decimals

Calculate and round your answers off to the nearest tenth

$\frac{1}{4} \times 2.4 =$	$\frac{2}{9} \times 3.5 =$	
$\frac{2}{7} \times 5.8 =$	$\frac{6}{7} \times 8.3 =$	
$\frac{4}{7} \times 3.3 =$	$\frac{1}{7} \times 9.5 =$	$\frac{1}{8} \times 9.1 =$
$\frac{2}{9} \times 4.4 =$	$\frac{1}{6} \times 7.1 =$	$\frac{2}{3} \times 8.4 =$
$\frac{8}{3} \times 4.9 =$	$\frac{1}{7} \times 8.5 =$	$\frac{1}{9} \times 5.7 =$
$\frac{2}{9} \times 15.3 =$	$\frac{3}{6} \times 7.2 =$	$\frac{9}{7} \times 4.3 =$
$\frac{3}{5} \times 7.9 =$	$\frac{4}{7} \times 3.2 =$	$\frac{7}{8} \times 8.3 =$
$\frac{2}{9} \times 4.9 =$	$\frac{1}{7} \times 9.2 =$	$\frac{2}{8} \times 24.2 =$
$\frac{3}{4} \times 25.4 =$	$\frac{3}{7} \times 8.2 =$	$\frac{4}{3} \times 3.7 =$

Copyright: Math in English

Dividing fractions by decimals

Calculate and round your answers off to the nearest hundredth

$\frac{1}{4} \div 1.2 =$	$\frac{2}{6} \div 0.5 =$	
$\frac{1}{4} \div 1.3 =$	$\frac{2}{7} \div 0.3 =$	
$\frac{1}{6} \div 2.1 =$	$\frac{1}{2} \div 1.5 =$	$\frac{1}{2} \div 2.3 =$
$\frac{1}{5} \div 0.4 =$	$\frac{1}{9} \div 0.1 =$	$\frac{1}{3} \div 0.8 =$
$\frac{5}{3} \div 1.7 =$	$\frac{1}{2} \div 1.7 =$	$\frac{1}{3} \div 0.5 =$
$\frac{2}{3} \div 0.3 =$	$\frac{1}{3} \div 0.2 =$	$\frac{5}{3} \div 0.9 =$
$\frac{1}{5} \div 0.9 =$	$\frac{1}{7} \div 1.2 =$	$\frac{1}{8} \div 1.3 =$
$\frac{3}{7} \div 0.4 =$	$\frac{1}{9} \div 1.8 =$	$\frac{3}{8} \div 0.2 =$
$\frac{3}{4} \div 0.4 =$	$\frac{5}{7} \div 1.2 =$	$\frac{2}{5} \div 0.7 =$

Copyright: Math in English

Dividing fractions by decimals

Calculate and round your answers off to the nearest hundredth

$\frac{1}{7} \div 1.5 =$	$\frac{2}{7} \div 1.5 =$	
$\frac{1}{5} \div 1.2 =$	$\frac{2}{9} \div 1.3 =$	
$\frac{1}{3} \div 3.1 =$	$\frac{1}{3} \div 1.2 =$	$\frac{1}{7} \div 2.5 =$
$\frac{1}{4} \div 0.7 =$	$\frac{2}{9} \div 0.4 =$	$\frac{1}{8} \div 0.7 =$
$\frac{4}{3} \div 1.3 =$	$\frac{1}{3} \div 1.5 =$	$\frac{1}{4} \div 0.6 =$
$\frac{2}{5} \div 0.4 =$	$\frac{1}{4} \div 0.4 =$	$\frac{5}{6} \div 1.9 =$
$\frac{1}{6} \div 0.8 =$	$\frac{3}{7} \div 2.2 =$	$\frac{1}{9} \div 1.5 =$
$\frac{2}{7} \div 0.5 =$	$\frac{2}{9} \div 1.5 =$	$\frac{7}{8} \div 0.3 =$
$\frac{3}{6} \div 0.5 =$	$\frac{5}{8} \div 1.2 =$	$\frac{2}{7} \div 0.7 =$

Copyright: Math in English

Are the following numbers divisible by 2, 3, 4 and 6 (no remainders or decimals)? Complete the tables with yes or no (the first one is done for you).

128	
By 2	Yes
By 3	No
By 4	Yes
By 6	No

345	
By 2	
By 3	
By 4	
By 6	

1,250	
By 2	
By 3	
By 4	
By 6	

750	
By 2	
By 3	
By 4	
By 6	

663	
By 2	
By 3	
By 4	
By 6	

734	
By 2	
By 3	
By 4	
By 6	

132	
By 2	
By 3	
By 4	
By 6	

500	
By 2	
By 3	
By 4	
By 6	

950	
By 2	
By 3	
By 4	
By 6	

380	
By 2	
By 3	
By 4	
By 6	

2,500	
By 2	
By 3	
By 4	
By 6	

Copyright: Math in English

Are the following numbers divisible by 3, 5, 6 and 8 (no remainders or decimals)? Complete the tables with yes or no.

308	
By 3	
By 5	
By 6	
By 8	

866	
By 3	
By 5	
By 6	
By 8	

3,050	
By 3	
By 5	
By 6	
By 8	

650	
By 3	
By 5	
By 6	
By 8	

222	
By 3	
By 5	
By 6	
By 8	

548	
By 3	
By 5	
By 6	
By 8	

176	
By 3	
By 5	
By 6	
By 8	

900	
By 3	
By 5	
By 6	
By 8	

325	
By 3	
By 5	
By 6	
By 8	

365	
By 3	
By 5	
By 6	
By 8	

1,700	
By 3	
By 5	
By 6	
By 8	

Copyright: Math in English

Are the following numbers divisible by 4, 6, 7 and 9 (no remainders or decimals)? Complete the tables with yes or no.

385	
By 4	
By 6	
By 7	
By 9	

284	
By 4	
By 6	
By 7	
By 9	

3,424	
By 4	
By 6	
By 7	
By 9	

999	
By 4	
By 6	
By 7	
By 9	

440	
By 4	
By 6	
By 7	
By 9	

738	
By 4	
By 6	
By 7	
By 9	

256	
By 4	
By 6	
By 7	
By 9	

642	
By 4	
By 6	
By 7	
By 9	

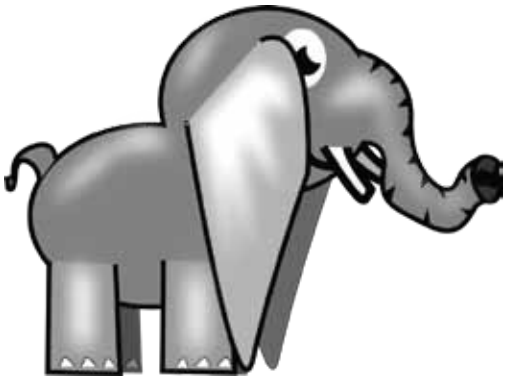
264	
By 4	
By 6	
By 7	
By 9	

450	
By 4	
By 6	
By 7	
By 9	

9,448	
By 4	
By 6	
By 7	
By 9	

Copyright: Math in English

Calculate



$2^2 =$	$4^4 =$		
$2^3 =$	$5^2 =$		
$3^2 =$	$6^2 =$	$3^6 =$	$1^2 =$
$2^4 =$	$3^3 =$	$9^0 =$	$3^0 =$
$2^5 =$	$4^3 =$	$8^2 =$	$1^3 =$
$4^2 =$	$3^1 =$	$6^2 =$	$7^2 =$
$2^0 =$	$7^0 =$	$5^2 =$	$2^9 =$
$5^3 =$	$4^1 =$	$9^2 =$	$7^3 =$
$7^1 =$	$6^1 =$	$2^8 =$	$8^0 =$
$2^6 =$	$3^5 =$	$9^3 =$	$1^5 =$
$4^0 =$	$2^7 =$	$8^3 =$	$5^4 =$

Copyright: Math in English

Calculate the square roots of the following numbers

$\sqrt{9} =$ $\sqrt{100} =$

$\sqrt{25} =$ $\sqrt{625} =$

$\sqrt{441} =$ $\sqrt{4} =$ $\sqrt{289} =$

$\sqrt{196} =$ $\sqrt{64} =$ $\sqrt{361} =$

$\sqrt{16} =$ $\sqrt{576} =$ $\sqrt{324} =$

$\sqrt{225} =$ $\sqrt{81} =$ $\sqrt{256} =$

$\sqrt{121} =$ $\sqrt{144} =$ $\sqrt{49} =$

$\sqrt{1} =$ $\sqrt{36} =$ $\sqrt{169} =$

$\sqrt{400} =$ $\sqrt{529} =$ $\sqrt{484} =$

Copyright: Math in English

Between which 2 whole numbers are the following square roots?

$\sqrt{110}$ is between ___ and ___

$\sqrt{150}$ is between ___ and ___

$\sqrt{40}$ is between ___ and ___

$\sqrt{10}$ is between ___ and ___

$\sqrt{200}$ is between ___ and ___

$\sqrt{550}$ is between ___ and ___

$\sqrt{70}$ is between ___ and ___

$\sqrt{30}$ is between ___ and ___

$\sqrt{230}$ is between ___ and ___

$\sqrt{270}$ is between ___ and ___

$\sqrt{50}$ is between ___ and ___

$\sqrt{500}$ is between ___ and ___

$\sqrt{122}$ is between ___ and ___

$\sqrt{85}$ is between ___ and ___

$\sqrt{60}$ is between ___ and ___

$\sqrt{190}$ is between ___ and ___

$\sqrt{300}$ is between ___ and ___

$\sqrt{424}$ is between ___ and ___

Copyright: Math in English

Prime factorize of the following numbers.

64 = _____

210 = _____

250 = _____

375 = _____

125 = _____

250 = _____

350 = _____

98 = _____

295 = _____

140 = _____

100 = _____

175 = _____

200 = _____

525 = _____

364 = _____

230 = _____

88 = _____

110 = _____

Prime factorize of the following numbers.

165 = _____

220 = _____

278 = _____

435 = _____

155 = _____

750 = _____

360 = _____

555 = _____

195 = _____

440 = _____

300 = _____

375 = _____

400 = _____

625 = _____

654 = _____

410 = _____

194 = _____

550 = _____

Calculate

-12 x 4 x -12 =

15 + -4 x -10 =

12 + 7 x -12 =

-20 x -4 x -12 =

-72 x -2 + -52 =

-20 x -5 x 9 =

-15 x 3 - -12 =

12 - 4 x 19 =

-19 x -3 - -99 =

-15 + 4 x -12 =

-14 - 9 x -12 =

20 + 8 x -10 =

-12 x 2 x -11 =

-25 x 4 + -12 =

-12 + 4 - -12 =

-16 x 2 x -10 =

11 x 2 + -12 =

-14 + 4 + -12 =

-12 x 5 x -12 =

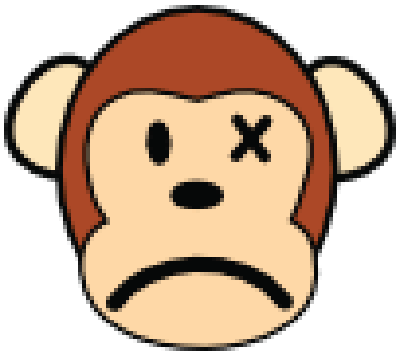
12 + -6 x -24 =

-12 x 3 x -16 =

-15 x -3 + 99 =

Copyright: Math in English

Calculate



-13 x 5 x -11 =

25 + -3 x -20 =

15 + 8 x -20 =

-25 x -3 x -11 =

-34 x -3 + -62 =

-14 x -3 x 8 =

-11 x 4 - -33 =

10 - 4 x 12 =

-22 x -3 - -23 =

-10 + 4 x -10 =

-11 - 8 x -12 =

45 + 8 x - 5 =

-18 x 2 x -22 =

-35 x 3 + -12 =

-15 + 3 - -19 =

-17 x 2 x -15 =

22 x 2 + -12 =

-20 + 4 + -22 =

-12 x 3 x -15 =

25 + -3 x -14 =

-15 x 2 x -11 =

-25 x -2 + 99 =

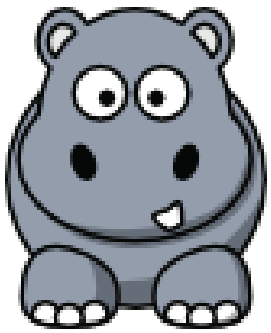
Copyright: Math in English

Use the BODMAS rules!

12 x (4 + 12) =	12 x (4 ÷ 2) =	
72 - (3 x 15) =	18 + 9 - 13 =	
23 - 4 x 2 =	10 x 3 - 22 =	12 ÷ (2 + 2) =
12 - (4 x 2) =	24 ÷ (4 + 2) =	12 x 8 + 10 =
12 x (8 - 7) =	(4 x 8) ÷ 0.5 =	12 x (14 + 7) =
72 ÷ (3 + 15) =	18 ÷ 9 - 2 =	21 x (4 ÷ 12) =
23 x 4 ÷ 2 =	10 - 3 x 2 =	15 ÷ (4 ÷ 12) =
12 x (7 + 2) =	24 x (4 ÷ 2) =	15 + 5 x 12 =
12 + 8 ÷ 2 =	75 x (4 - 2) =	12 - 4 x 3 =
72 - 4 x 15 =	18 + 9 ÷ 3 =	30 x 4 ÷ 12 =
23 + 8 ÷ 2 =	10 ÷ 3 x 3 =	12 - (8 - 2) =
(10 + 16) ÷ 2 =	38 + 4 x 2 =	12 - 10 ÷ 2 =

Copyright: Math in English

Use the BODMAS rules!

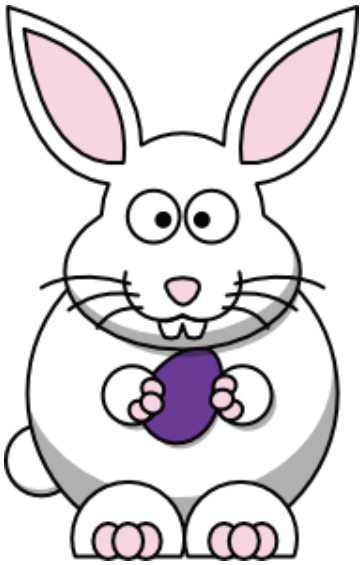


15 x (3 + 12) =	17 x (9 ÷ 2) =	
75 - (3 x 13) =	17 + 4 - 13 =	
25 - 5 x 2 =	10 x 9 - 22 =	36 ÷ (4 + 2) =
18 - (3 x 2) =	24 ÷ (8 + 2) =	12 x 3 + 10 =
15 x (8 - 7) =	(2 x 5) ÷ 0.1 =	15 x (12 + 7) =
45 ÷ (3 + 12) =	27 ÷ 3 - 2 =	14 x (8 ÷ 16) =
20 x 8 ÷ 2 =	22 - 4 x 2 =	15 ÷ (4 ÷ 16) =
22 x (3 + 2) =	20 x (6 ÷ 2) =	32 + 5 x 12 =
25 + 6 ÷ 2 =	70 x (4 - 2) =	66 - 4 x 3 =
55 - 3 x 15 =	10 + 9 ÷ 3 =	25 x 4 ÷ 10 =
23 + 6 ÷ 2 =	10 ÷ 2 x 3 =	19 - (7 - 2) =
(11 + 13) ÷ 2 =	67 + 4 x 2 =	12 - 18 ÷ 2 =

Copyright: Math in English

Division by 3 digit numbers (whole tens)

Divide



17,765 ÷ 330 =	23,465 ÷ 270 =	
18,090 ÷ 250 =	15,000 ÷ 910 =	
76,980 ÷ 990 =	12,511 ÷ 150 =	15,865 ÷ 220 =
23,678 ÷ 430 =	34,009 ÷ 940 =	19,999 ÷ 350 =
21,987 ÷ 430 =	21,980 ÷ 380 =	55,555 ÷ 660 =
87,001 ÷ 950 =	44,871 ÷ 590 =	23,871 ÷ 570 =
11,765 ÷ 120 =	48,765 ÷ 580 =	14,008 ÷ 730 =

Copyright: Math in English

Division by 3 digit numbers (whole tens)

Divide

23,987 ÷ 340 =	44,987 ÷ 660 =	
21,098 ÷ 560 =	17,000 ÷ 310 =	
44,098 ÷ 490 =	16,511 ÷ 250 =	66,989 ÷ 860 =
76,981 ÷ 930 =	45,768 ÷ 940 =	19,999 ÷ 350 =
21,112 ÷ 430 =	48,987 ÷ 580 =	55,555 ÷ 660 =
75,004 ÷ 950 =	44,871 ÷ 590 =	32,541 ÷ 570 =
44,863 ÷ 520 =	45,735 ÷ 570 =	19,004 ÷ 730 =

Copyright: Math in English

Finding factors

Find the factors of the following numbers:

100	1, 2, 4, 5, 10, 20, 25, 50, 100	225	1, 3, 5, 9, 15, 25, 45, 75, 225
80	1, 2, 4, 5, 8, 10, 16, 20, 40, 80	113	1, 113
16	1, 2, 4, 8, 16	125	1, 5, 25, 125
20	1, 2, 4, 5, 10, 20	110	1, 2, 5, 10, 11, 22, 55, 110
75	1, 3, 5, 15, 25, 75	145	1, 5, 29, 145
92	1, 2, 4, 23, 46, 92	155	1, 5, 31, 155
69	1, 3, 23, 69	128	1, 2, 4, 8, 16, 32, 64, 128
88	1, 2, 4, 8, 11, 22, 44, 88	195	1, 3, 5, 13, 15, 39, 65, 195
64	1, 2, 4, 8, 16, 32, 64	44	1, 2, 4, 11, 22, 44
98	1, 2, 7, 14, 49, 98	175	1, 5, 7, 25, 35, 175
118	1, 2, 59, 118		
102	1, 2, 3, 6, 17, 34, 51, 102		

Finding factors

Find the factors of the following numbers:

124	1, 2, 4, 31, 62, 124	325	1, 5, 13, 25, 65, 325
70	1, 2, 5, 7, 10, 14, 35, 70	139	1, 139
26	1, 2, 13, 26	126	1, 2, 3, 6, 7, 9, 14, 18, 21, 42, 63, 126
90	1, 2, 3, 5, 6, 9, 10, 15, 18, 30, 45, 90	118	1, 2, 59, 118
35	1, 5, 7, 35	142	1, 2, 71, 142
96	1, 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 96	122	1, 2, 61, 122
99	1, 3, 9, 11, 33, 99	155	1, 5, 31, 155
85	1, 5, 17, 85	134	1, 2, 67, 134
65	1, 5, 13, 65	48	1, 2, 3, 4, 6, 8, 12, 16, 24, 48
94	1, 2, 47, 94	150	1, 2, 3, 5, 6, 10, 15, 25, 30, 50, 75, 150
128	1, 2, 4, 8, 16, 32, 64, 128		
156	1, 2, 3, 4, 6, 12, 13, 26, 39, 52, 78, 156		

Multiplying fractions by decimals

Calculate and round your answers off to the nearest tenth

$\frac{1}{3}$ x 4.2 = 1.4	$\frac{2}{5}$ x 8.5 = 3.4	
$\frac{2}{4}$ x 5.3 = 2.7	$\frac{2}{7}$ x 9.3 = 2.7	
$\frac{1}{7}$ x 9.1 = 1.3	$\frac{1}{3}$ x 7.5 = 2.5	$\frac{1}{2}$ x 9.3 = 4.7
$\frac{2}{5}$ x 4.4 = 1.8	$\frac{1}{4}$ x 5.1 = 1.3	$\frac{1}{3}$ x 8.8 = 2.9
$\frac{4}{3}$ x 4.7 = 6.3	$\frac{1}{2}$ x 5.5 = 2.8	$\frac{1}{3}$ x 5.5 = 1.8
$\frac{2}{3}$ x 11.3 = 7.5	$\frac{1}{6}$ x 8.2 = 1.4	$\frac{5}{3}$ x 4.9 = 8.2
$\frac{1}{5}$ x 9.9 = 2	$\frac{1}{7}$ x 9.2 = 1.3	$\frac{3}{8}$ x 4.3 = 1.6
$\frac{2}{7}$ x 4.4 = 1.3	$\frac{1}{6}$ x 9.2 = 1.5	$\frac{1}{5}$ x 24.2 = 4.8
$\frac{1}{4}$ x 39.4 = 9.9	$\frac{6}{7}$ x 4.2 = 3.6	$\frac{4}{5}$ x 4.7 = 3.8

Multiplying fractions by decimals

Calculate and round your answers off to the nearest tenth

$\frac{1}{4}$ x 2.4 = 0.6	$\frac{2}{9}$ x 3.5 = 0.8	
$\frac{2}{7}$ x 5.8 = 1.7	$\frac{6}{7}$ x 8.3 = 7.1	
$\frac{4}{7}$ x 3.3 = 1.9	$\frac{1}{7}$ x 9.5 = 1.4	$\frac{1}{8}$ x 9.1 = 1.1
$\frac{2}{9}$ x 4.4 = 1	$\frac{1}{6}$ x 7.1 = 1.2	$\frac{2}{3}$ x 8.4 = 5.6
$\frac{8}{3}$ x 4.9 = 13.1	$\frac{1}{7}$ x 8.5 = 1.2	$\frac{1}{9}$ x 5.7 = 0.6
$\frac{2}{9}$ x 15.3 = 3.4	$\frac{3}{6}$ x 7.2 = 3.6	$\frac{9}{7}$ x 4.3 = 5.5
$\frac{3}{5}$ x 7.9 = 4.7	$\frac{4}{7}$ x 3.2 = 1.8	$\frac{7}{8}$ x 8.3 = 7.3
$\frac{2}{9}$ x 4.9 = 1.1	$\frac{1}{7}$ x 9.2 = 1.3	$\frac{2}{8}$ x 24.2 = 6.1
$\frac{3}{4}$ x 25.4 = 19.1	$\frac{3}{7}$ x 8.2 = 3.5	$\frac{4}{3}$ x 3.7 = 4.9

Dividing fractions by decimals

Calculate and round your answers off to the nearest hundredth

$\frac{1}{4} \div 1.2 = 0.21$	$\frac{2}{6} \div 0.5 = 0.67$	
$\frac{1}{4} \div 1.3 = 0.19$	$\frac{2}{7} \div 0.3 = 0.95$	
$\frac{1}{6} \div 2.1 = 0.08$	$\frac{1}{2} \div 1.5 = 0.33$	$\frac{1}{2} \div 2.3 = 0.22$
$\frac{1}{5} \div 0.4 = 0.5$	$\frac{1}{9} \div 0.1 = 1.11$	$\frac{1}{3} \div 0.8 = 0.42$
$\frac{5}{3} \div 1.7 = 0.98$	$\frac{1}{2} \div 1.7 = 0.29$	$\frac{1}{3} \div 0.5 = 0.67$
$\frac{2}{3} \div 0.3 = 2.22$	$\frac{1}{3} \div 0.2 = 1.67$	$\frac{5}{3} \div 0.9 = 1.85$
$\frac{1}{5} \div 0.9 = 0.22$	$\frac{1}{7} \div 1.2 = 0.12$	$\frac{1}{8} \div 1.3 = 0.1$
$\frac{3}{7} \div 0.4 = 1.07$	$\frac{1}{9} \div 1.8 = 0.06$	$\frac{3}{8} \div 0.2 = 1.88$
$\frac{3}{4} \div 0.4 = 1.88$	$\frac{5}{7} \div 1.2 = 0.6$	$\frac{2}{5} \div 0.7 = 0.57$

Dividing fractions by decimals

Calculate and round your answers off to the nearest hundredth

$\frac{1}{7} \div 1.5 = 0.1$	$\frac{2}{7} \div 1.5 = 0.19$	
$\frac{1}{5} \div 1.2 = 0.17$	$\frac{2}{9} \div 1.3 = 0.17$	
$\frac{1}{3} \div 3.1 = 0.11$	$\frac{1}{3} \div 1.2 = 0.28$	$\frac{1}{7} \div 2.5 = 0.06$
$\frac{1}{4} \div 0.7 = 0.36$	$\frac{2}{9} \div 0.4 = 0.56$	$\frac{1}{8} \div 0.7 = 0.18$
$\frac{4}{3} \div 1.3 = 1.03$	$\frac{1}{3} \div 1.5 = 0.22$	$\frac{1}{4} \div 0.6 = 0.42$
$\frac{2}{5} \div 0.4 = 1$	$\frac{1}{4} \div 0.4 = 0.63$	$\frac{5}{6} \div 1.9 = 0.44$
$\frac{1}{6} \div 0.8 = 0.21$	$\frac{3}{7} \div 2.2 = 0.19$	$\frac{1}{9} \div 1.5 = 0.07$
$\frac{2}{7} \div 0.5 = 0.57$	$\frac{2}{9} \div 1.5 = 0.15$	$\frac{7}{8} \div 0.3 = 2.92$
$\frac{3}{6} \div 0.5 = 1$	$\frac{5}{8} \div 1.2 = 0.52$	$\frac{2}{7} \div 0.7 = 0.41$

Divisibility rules of 2, 3, 4 and 6

Are the following numbers divisible by 2, 3, 4 and 6 (no remainders or decimals)? Complete the tables with yes or no.

128	
By 2	Yes
By 3	No
By 4	Yes
By 6	No

345	
By 2	No
By 3	Yes
By 4	No
By 6	No

1,250	
By 2	Yes
By 3	No
By 4	No
By 6	No

750	
By 2	Yes
By 3	Yes
By 4	No
By 6	Yes

663	
By 2	No
By 3	Yes
By 4	No
By 6	No

734	
By 2	Yes
By 3	No
By 4	No
By 6	No

132	
By 2	Yes
By 3	Yes
By 4	Yes
By 6	Yes

500	
By 2	Yes
By 3	No
By 4	Yes
By 6	No

950	
By 2	Yes
By 3	No
By 4	No
By 6	No

380	
By 2	Yes
By 3	No
By 4	Yes
By 6	No

2,500	
By 2	Yes
By 3	No
By 4	Yes
By 6	No

Divisibility rules of 3, 5, 6 and 8

Are the following numbers divisible by 3, 5, 6 and 8 (no remainders or decimals)? Complete the tables with yes or no.

308	
By 3	No
By 5	No
By 6	No
By 8	No

866	
By 3	No
By 5	No
By 6	No
By 8	No

3,050	
By 3	No
By 5	Yes
By 6	No
By 8	No

650	
By 3	No
By 5	Yes
By 6	No
By 8	No

222	
By 3	Yes
By 5	No
By 6	Yes
By 8	No

548	
By 3	No
By 5	No
By 6	No
By 8	No

176	
By 3	No
By 5	No
By 6	No
By 8	Yes

900	
By 3	Yes
By 5	Yes
By 6	Yes
By 8	No

325	
By 3	No
By 5	Yes
By 6	No
By 8	No

365	
By 3	No
By 5	Yes
By 6	No
By 8	No

1,700	
By 3	No
By 5	Yes
By 6	No
By 8	No

Divisibility rules of 4, 6, 7 and 9

Are the following numbers divisible by 4, 6, 7 and 9 (no remainders or decimals)? Complete the tables with yes or no.

385	
By 4	No
By 6	No
By 7	Yes
By 9	No

284	
By 4	Yes
By 6	No
By 7	No
By 9	No

3,424	
By 4	Yes
By 6	No
By 7	No
By 9	No

999	
By 4	No
By 6	No
By 7	No
By 9	Yes

440	
By 4	Yes
By 6	No
By 7	No
By 9	No

738	
By 4	No
By 6	Yes
By 7	No
By 9	Yes

256	
By 4	Yes
By 6	No
By 7	No
By 9	No

642	
By 4	No
By 6	Yes
By 7	No
By 9	No

264	
By 4	Yes
By 6	Yes
By 7	No
By 9	No

450	
By 4	No
By 6	Yes
By 7	No
By 9	Yes

9,448	
By 4	Yes
By 6	No
By 7	No
By 9	No

Exponents

Calculate

$2^2 = 4$ $4^4 = 256$

$2^3 = 8$ $5^2 = 25$

$3^2 = 9$ $6^2 = 36$ $3^6 = 729$ $1^2 = 1$

$2^4 = 16$ $3^3 = 27$ $9^0 = 1$ $3^0 = 1$

$2^5 = 32$ $4^3 = 64$ $8^2 = 64$ $1^3 = 1$

$4^2 = 16$ $3^1 = 3$ $6^2 = 36$ $7^2 = 49$

$2^0 = 1$ $7^0 = 1$ $5^2 = 25$ $2^9 = 512$

$5^3 = 125$ $4^1 = 4$ $9^2 = 81$ $7^3 = 343$

$7^1 = 7$ $6^1 = 6$ $2^8 = 256$ $8^0 = 1$

$2^6 = 64$ $3^5 = 243$ $9^3 = 729$ $1^5 = 1$

$4^0 = 1$ $2^7 = 128$ $8^3 = 512$ $5^4 = 625$

Square roots

Calculate the square roots of the following numbers

$\sqrt{9} = 3$ $\sqrt{100} = 10$

$\sqrt{25} = 5$ $\sqrt{625} = 25$

$\sqrt{441} = 21$ $\sqrt{4} = 2$ $\sqrt{289} = 17$

$\sqrt{196} = 14$ $\sqrt{64} = 8$ $\sqrt{361} = 19$

$\sqrt{16} = 4$ $\sqrt{576} = 24$ $\sqrt{324} = 18$

$\sqrt{225} = 15$ $\sqrt{81} = 9$ $\sqrt{256} = 16$

$\sqrt{121} = 11$ $\sqrt{144} = 12$ $\sqrt{49} = 7$

$\sqrt{1} = 1$ $\sqrt{36} = 6$ $\sqrt{169} = 13$

$\sqrt{400} = 20$ $\sqrt{529} = 23$ $\sqrt{484} = 22$

Square roots

Between which 2 whole numbers are the following square roots?

$\sqrt{110}$ is between 10 and 11

$\sqrt{150}$ is between 12 and 13

$\sqrt{40}$ is between 6 and 7 $\sqrt{10}$ is between 3 and 4

$\sqrt{200}$ is between 14 and 15 $\sqrt{550}$ is between 23 and 24

$\sqrt{70}$ is between 8 and 9 $\sqrt{30}$ is between 5 and 6

$\sqrt{230}$ is between 15 and 16 $\sqrt{270}$ is between 16 and 17

$\sqrt{50}$ is between 7 and 8 $\sqrt{500}$ is between 22 and 23

$\sqrt{122}$ is between 11 and 12 $\sqrt{85}$ is between 9 and 10

$\sqrt{60}$ is between 7 and 8 $\sqrt{190}$ is between 13 and 14

$\sqrt{300}$ is between 17 and 18 $\sqrt{424}$ is between 20 and 21

Prime factorization

Find the prime factorization of the following numbers.

64 = 2 x 2 x 2 x 2 x 2 x 2

210 = 2 × 3 × 5 × 7

250 = 2 x 5 x 5 x 5

125 = 5 x 5 x 5

350 = 2 x 5 x 5 x 7

295 = 5 × 59

100 = 2 x 2 x 5 x 5

200 = 2 x 2 x 2 x 5 x 5

364 = 2 x 2 x 7 x 13

88 = 2 x 2 x 2 x 11

375 = 3 x 5 x 5 x 5

250 = 2 x 5 x 5 x 5

98 = 2 x 7 x 7

140 = 2 x 2 x 5 x 7

175 = 5 x 5 x 7

525 = 3 x 5 x 5 x 7

230 = 2 x 5 x 23

110 = 2 x 5 x 11

Prime factorization

Find the prime factorization of the following numbers.

165 = 3 x 5 x 11

220 = 2 × 2 × 5 × 11

278 = 2 x 139

155 = 5 x 31

360 = 2 x 2 x 2 x 3 x 3 x5

195 = 3 × 5 x 13

300 = 2 x 2 x 3 x 5 x 5

400 = 2 x 2 x 2 x 2 x 5 x 5

654 = 2 x 3 x 109

194 = 2 x 97

435 = 3 x 5 x 29

750 = 2 x 3 x 5 x 5 x 5

555 = 3 x 5 x 37

440 = 2 x 2 x 2x 5 x 11

375 = 3 x 5 x 5 x 5

625 = 5 x 5 x 5 x 5

410 = 2 x 5 x 41

550 = 2 x 5 x 5 x 11

Calculations with 3 Integers

Calculate

-12 x 4 x -12 = 576

15 + -4 x -10 = 55

12 + 7 x -12 = -72

-20 x -4 x -12 = -960

-72 x -2 + -52 = 92

-20 x -5 x 9 = 900

-15 x 3 - -12 = -33

12 - 4 x 19 = -64

-19 x -3 - -99 = 156

-15 + 4 x -12 = -63

-14 - 9 x -12 = 94

20 + 8 x -10 = -60

-12 x 2 x -11 = 264

-25 x 4 + -12 = -112

-12 + 4 - -12 = 4

-16 x 2 x -10 = 320

11 x 2 + -12 = 10

-14 + 4 + -12 = -22

-12 x 5 x -12 = 720

12 + -6 x -24 = 156

-12 x 3 x -16 = 576

-15 x -3 + 99 = 144

Calculations with 3 Integers

Calculate

-13 x 5 x -11 = 715

25 + -3 x -20 = 85

15 + 8 x -20 = -145

-25 x -3 x -11 = -825

-34 x -3 + -62 = 40

-14 x -3 x 8 = 336

-11 x 4 - -33 = -11

10 - 4 x 12 = -38

-22 x -3 - -23 = 89

-10 + 4 x -10 = -50

-11 - 8 x -12 = 85

45 + 8 x - 5 = 5

-18 x 2 x -22 = 792

-35 x 3 + -12 = -117

-15 + 3 - -19 = 7

-17 x 2 x -15 = 510

22 x 2 + -12 = 32

-20 + 4 + -22 = -38

-12 x 3 x -15 = 540

25 + -3 x -14 = 67

-15 x 2 x -11 = 330

-25 x -2 + 99 = 149

Order of Operations: Bodmas

Use the BODMAS rules!

12 x (4 + 12) = 192	12 x (4 ÷ 2) = 36	
72 - (3 x 15) = 27	18 + 9 - 13 = 14	
23 - 4 x 2 = 15	10 x 3 - 22 = 8	12 ÷ (2 + 2) = 3
12 - (4 x 2) = 4	24 ÷ (4 + 2) = 6	12 x 8 + 10 = 106
12 x (8 - 7) = 12	(4 x 8) ÷ 0.5 = 64	12 x (14 + 7) = 252
72 ÷ (3 + 15) = 4	18 ÷ 9 - 2 = 0	21 x (4 ÷ 12) = 7
23 x 4 ÷ 2 = 46	10 - 3 x 2 = 4	15 ÷ (4 ÷ 12) = 45
12 x (7 + 2) = 108	24 x (4 ÷ 2) = 48	15 + 5 x 12 = 75
12 + 8 ÷ 2 = 16	75 x (4 - 2) = 150	12 - 4 x 3 = 0
72 - 4 x 15 = 12	18 + 9 ÷ 3 = 21	30 x 4 ÷ 12 = 10
23 + 8 ÷ 2 = 27	10 ÷ 3 x 3 = 10	12 - (8 - 2) = 6
(10 + 16) ÷ 2 = 13	38 + 4 x 2 = 46	12 - 10 ÷ 2 = 7

Order of Operations: Bodmas

Use the BODMAS rules!

15 x (3 + 12) = 225	17 x (9 ÷ 2) = 76.5	
75 - (3 x 13) = 36	17 + 4 - 13 = 8	
25 - 5 x 2 = 15	10 x 9 - 22 = 68	36 ÷ (4 + 2) = 6
18 - (3 x 2) = 12	24 ÷ (8 + 2) = 2.4	12 x 3 + 10 = 46
15 x (8 - 7) = 15	(2 x 5) ÷ 0.1 = 100	15 x (12 + 7) = 285
45 ÷ (3 + 12) = 3	27 ÷ 3 - 2 = 7	14 x (8 ÷ 16) = 7
20 x 8 ÷ 2 = 80	22 - 4 x 2 = 14	15 ÷ (4 ÷ 16) = 60
22 x (3 + 2) = 110	20 x (6 ÷ 2) = 60	32 + 5 x 12 = 92
25 + 6 ÷ 2 = 28	70 x (4 - 2) = 140	66 - 4 x 3 = 54
55 - 3 x 15 = 10	10 + 9 ÷ 3 = 13	25 x 4 ÷ 10 = 10
23 + 6 ÷ 2 = 26	10 ÷ 2 x 3 = 15	19 - (7 - 2) = 14
(11 + 13) ÷ 2 = 12	67 + 4 x 2 = 75	12 - 18 ÷ 2 = 3

Division by 3 digit numbers (whole tens)

Divide

17,765 ÷ 330 = 53 R 275	23,465 ÷ 270 = 86 R 245	
18,090 ÷ 250 = 72 R 90	15,000 ÷ 910 = 16 R 440	
76,980 ÷ 990 = 77 R 750	12,511 ÷ 150 = 83 R 61	15,865 ÷ 220 = 72 R 25
23,678 ÷ 430 = 55 R 28	34,009 ÷ 940 = 36 R 169	19,999 ÷ 350 = 57 R 49
21,987 ÷ 430 = 51 R 57	21,980 ÷ 380 = 57 R 320	55,555 ÷ 660 = 84 R 115
87,001 ÷ 950 = 91 R 551	44,871 ÷ 590 = 76 R 31	23,871 ÷ 570 = 41 R 501
11,765 ÷ 120 = 98 R 5	48,765 ÷ 580 = 84 R 45	14,008 ÷ 730 = 19 R 138

Division by 3 digit numbers (whole tens)

Divide

23,987 ÷ 340 = 70 R 187	44,987 ÷ 660 = 68 R 107	
21,098 ÷ 560 = 37 R 378	17,000 ÷ 310 = 54 R 260	
44,098 ÷ 490 = 89 R 488	16,511 ÷ 250 = 66 R 11	66,989 ÷ 860 = 77 R 769
76,981 ÷ 930 = 82 R 721	45,768 ÷ 940 = 48 R 648	19,999 ÷ 350 = 57 R 49
21,112 ÷ 430 = 49 R 42	48,987 ÷ 580 = 84 R 267	55,555 ÷ 660 = 84 R 115
75,004 ÷ 950 = 78 R 904	44,871 ÷ 590 = 76 R 31	32,541 ÷ 570 = 57 R 51
44,863 ÷ 520 = 86 R 143	45,735 ÷ 570 = 80 R 135	19,004 ÷ 730 = 26 R 24