

Maths intervention work booklet



Name: _____

Tutor group: _____

Multiplication:

Multiplying by 10:

$36 \times 10 =$

$4 \times 10 =$

$72 \times 10 =$

$193 \times 10 =$

$91 \times 10 =$

$999 \times 10 =$

$605 \times 10 =$

$424 \times 10 =$

$110 \times 10 =$

$68 \times 10 =$

Multiplying by 100:

$22 \times 100 =$

$7 \times 100 =$

$38 \times 100 =$

$139 \times 100 =$

$76 \times 100 =$

$888 \times 100 =$

$613 \times 100 =$

$489 \times 100 =$

$115 \times 100 =$

$93 \times 100 =$

Multiplying by 1000:

$45 \times 1000 =$

$6 \times 1000 =$

$52 \times 1000 =$

$263 \times 1000 =$

$92 \times 1000 =$

$777 \times 1000 =$

$524 \times 1000 =$

$881 \times 1000 =$

$306 \times 1000 =$

$21 \times 1000 =$

Grid method questions:

Answer the following questions using the grid method.

$9 \times 12 =$

$6 \times 21 =$

$4 \times 36 =$

$2 \times 67 =$

$3 \times 29 =$

$5 \times 45 =$

$8 \times 37 =$

$7 \times 63 =$

$6 \times 54 =$

$3 \times 79 =$

$4 \times 30 =$

$9 \times 68 =$

$5 \times 82 =$

$22 \times 36 =$

$11 \times 21 =$

$18 \times 15 =$

$13 \times 16 =$

$14 \times 12 =$

$24 \times 16 =$

$21 \times 32 =$

$42 \times 81 =$

$31 \times 67 =$

$89 \times 92 =$

$39 \times 74 =$

$57 \times 62 =$

$49 \times 65 =$

$246 \times 131 =$

$115 \times 213 =$

$184 \times 155 =$

$138 \times 167 =$

$148 \times 122 =$

$264 \times 169 =$

$216 \times 328 =$

$427 \times 810 =$

$311 \times 672 =$

$897 \times 924 =$

$399 \times 747 =$

$573 \times 629 =$

$853 \times 392 =$

Working out:

Division:

Dividing by 10:

$36 \div 10 =$

$72 \div 10 =$

$84 \div 10 =$

$193 \div 10 =$

$605 \div 10 =$

$999 \div 10 =$

$110 \div 10 =$

$424 \div 10 =$

$91 \div 10 =$

$93 \div 10 =$

Dividing by 100:

$22 \div 100 =$

$7 \div 100 =$

$38 \div 100 =$

$139 \div 100 =$

$76 \div 100 =$

$888 \div 100 =$

$613 \div 100 =$

$489 \div 100 =$

$115 \div 100 =$

$93 \div 100 =$

Dividing by 1000:

$45 \div 1000 =$

$6 \div 1000 =$

$52 \div 1000 =$

$263 \div 1000 =$

$92 \div 1000 =$

$777 \div 1000 =$

$524 \div 1000 =$

$881 \div 1000 =$

$306 \div 1000 =$

$21 \div 1000 =$

Bus stop method questions:

Answer the following questions using the bus stop method.

$9 \div 12 =$

$6 \div 21 =$

$4 \div 36 =$

$2 \div 67 =$

$3 \div 29 =$

$5 \div 45 =$

$8 \div 37 =$

$7 \div 63 =$

$6 \div 54 =$

$3 \div 79 =$

$4 \div 30 =$

$7 \div 123 =$

$3 \div 256 =$

$22 \div 36 =$

$11 \div 21 =$

$18 \div 15 =$

$13 \div 16 =$

$14 \div 12 =$

$24 \div 16 =$

$21 \div 32 =$

$42 \div 81 =$

$31 \div 67 =$

$89 \div 92 =$

$39 \div 74 =$

$56 \div 21 =$

$89 \div 47 =$

$246 \div 131 =$

$115 \div 213 =$

$184 \div 155 =$

$138 \div 167 =$

$148 \div 122 =$

$264 \div 169 =$

$216 \div 328 =$

$427 \div 810 =$

$311 \div 672 =$

$897 \div 924 =$

$399 \div 747 =$

$565 \div 216 =$

$893 \div 479 =$

Working out:

Calculating with decimals:

Adding decimals to whole numbers:

$$\begin{array}{ll} 9+1.5= & 10+4.2= \\ 2+3.8= & 47+2.7= \\ 4+15.6= & 16+6.4= \\ 10+9.8= & 82+7.1= \\ 18+22.5= & 65+1.5= \end{array}$$

Subtracting decimals from whole numbers:

$$\begin{array}{ll} 10-2.5= & 30-5.5= \\ 6-3.2= & 46-2.8= \\ 18-4.9= & 21-8.6= \\ 37-6.2= & 33-7.4= \\ 2-0.75= & 86-6.7= \end{array}$$

Multiplying decimals by whole numbers:

$$\begin{array}{ll} 3.2 \times 3= & 5.7 \times 5= \\ 8.3 \times 2= & 11.5 \times 4= \\ 39.2 \times 8= & 61.9 \times 6= \\ 42.8 \times 4= & 76.9 \times 7= \\ 95.1 \times 3= & 84.9 \times 9= \end{array}$$

Dividing decimals by whole numbers:

$$\begin{array}{ll} 1.5 \div 3= & 8.8 \div 4= \\ 2.5 \div 5= & 24.6 \div 3= \\ 12.8 \div 4= & 49.7 \div 7= \\ 6.2 \div 2= & 54.6 \div 6= \\ 3.9 \div 3= & 96.9 \div 3= \end{array}$$

Adding decimals:

$$\begin{array}{ll} 4.8+1.2= & 6.4+3.3= \\ 8.9+3.6= & 57.9+6.6= \\ 18.7+7.9= & 5.4+0.5= \\ 28.4+33.5= & 9.4+24.7= \\ 76.9+63.3= & 24.6+5.5= \end{array}$$

Subtracting decimals:

$$\begin{array}{ll} 2.2-1.1= & 6.4-3.3= \\ 9.8-2.6= & 7.5-3.4= \\ 21.8-11.7= & 1.5-0.5= \\ 42.8-33.2= & 4.9-2.7= \\ 96.7-52.3= & 62.4-2.5= \end{array}$$

Multiplying decimals:

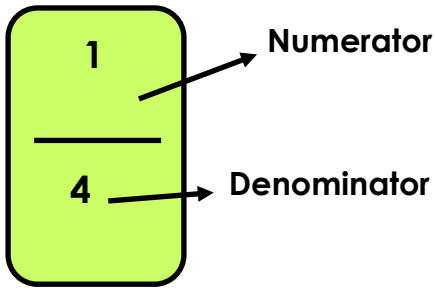
$$\begin{array}{ll} 1.9 \times 8.2= & 31.2 \times 3.6= \\ 6.4 \times 6.7= & 49.3 \times 2.3= \\ 7.3 \times 4.1= & 85.2 \times 21.8= \\ 6.2 \times 8.5= & 12.4 \times 7.9= \\ 4.5 \times 1.2.7= & 64.8 \times 62.7= \end{array}$$

Multiplying decimals:

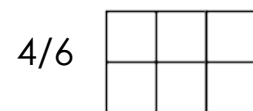
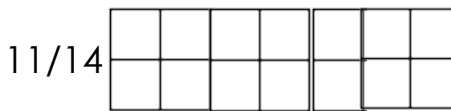
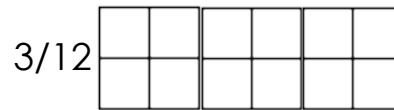
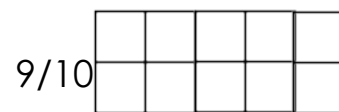
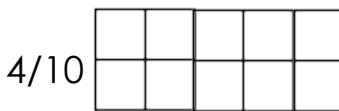
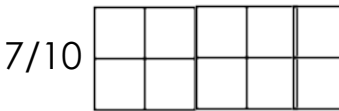
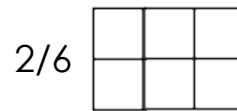
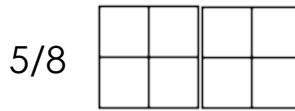
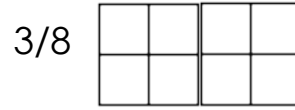
$$\begin{array}{ll} 10.42 \div 0.2= & 1.82 \div 0.2= \\ 12.24 \div 0.4= & 0.24 \div 0.6= \\ 11.2 \div 1.1= & 5.7 \div 0.6= \\ 11.9 \div 1.7= & 8.4 \div 0.6= \\ 12.1 \div 0.2= & 15.84 \div 8= \end{array}$$

Working out:

Understanding fractions:



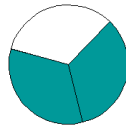
Shade the following fractions:



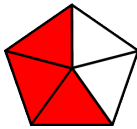
Match up the following fractions :



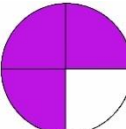
$3/4$



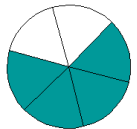
$2/3$



$1/6$



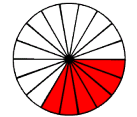
$3/5$



$2/6$



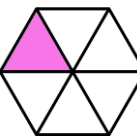
$4/6$



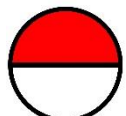
$6/18$



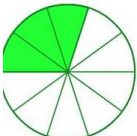
$3/8$



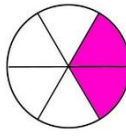
$1/2$



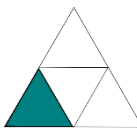
$3/10$



$7/10$



$3/6$



$1/5$



Understanding fractions:

Adding fractions:

$$\begin{array}{ll} 1/4+2/4= & 3/6+1/6= \\ 2/5+1/2= & 4/5+2/3= \\ 1/3+4/6= & 3/12+5/6= \\ 7/14+1/2= & 8/10+4/9= \\ 1/3+4/7= & 3/5+2/9= \end{array}$$

Subtracting fractions:

$$\begin{array}{ll} 3/4-1/4= & 5/6-2/6= \\ 7/10-3/10= & 4/8-1/8= \\ 4/10-2/5= & 3/4-1/2= \\ 5/6-2/3= & 4/6-2/10= \\ 9/10-2/5= & 7/9-5/6= \end{array}$$

Multiplying fractions:

$$\begin{array}{ll} 1/2 \times 2/4= & 4/5 \times 2/10= \\ 3/10 \times 4/5= & 5/8 \times 3/10= \\ 4/6 \times 3/5= & 3/6 \times 2/8= \\ 7/9 \times 2/4= & 5/7 \times 2/6= \\ 3/4 \times 5/5= & 6/9 \times 1/3= \end{array}$$

Turn these improper fractions into mixed number fractions:

$$\begin{array}{ll} 11/4= & 9/7= \\ 6/5= & 6/3= \\ 8/4= & 8/6= \\ 3/2= & 12/9= \\ 14/5= & 22/12= \\ 9/3= & 20/7= \\ 42/7= & 32/15= \end{array}$$

Cancel these fractions into their simplest form:

$$\begin{array}{ll} 2/4= & 10/100= \\ 3/15= & 5/25= \\ 4/8= & 5/50= \\ 10/12= & 7/63= \\ 3/9= & 4/12= \\ 5/10= & 8/64= \\ 2/10= & 6/66= \\ 3/6= & 12/120= \\ 4/6= & 55/250= \\ 6/8= & 16/94= \\ 3/12= & 244/1460= \end{array}$$

Match the fractions to the decimals:

1/2	0.56
4/10	0.16
1/5	0.75
6/10	0.4
3/4	0.12
1/4	0.5
15/100	0.25
56/100	0.2
6/50	0.6
4/25	0.15

Working out:

Factors, multiples and primes:

What is a factor:

Factors are numbers you can multiply together to get another number. For example, the factors of 4 are 1, 2 and 4.

What is a prime:

A Prime Number can be divided evenly only by 1, or itself. And it must be a whole number greater than 1. For example 5 is a prime number as it is only divisible by 1 and itself.

What is a multiple:

The result of multiplying a number by a whole number. For example, 12 is a multiple of 3 but 7 isn't.

List all of the factors of each number:

12=

6=

62=

8=

44=

16=

10=

32=

24=

64=

48=

56=

14=

35=

27=

4=

42=

18=

75=

26=

39=

86=

Factors, multiples and primes:

Highlight all the prime numbers in the grid below:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Write true or false next to each statement below:

2 is a multiple of 8 _____ 36 is a multiple of 12 _____

3 is a multiple of 13 _____ 3 is a multiple of 1 _____

32 is a multiple of 4 _____ 32 is a multiple of 16 _____

64 is a multiple of 6 _____ 33 is a multiple of 11 _____

35 is a multiple of 5 _____ 160 is a multiple of 20 _____

48 is a multiple of 8 _____ 28 is a multiple of 4 _____

49 is a multiple of 7 _____ 94 is a multiple of 9 _____

62 is a multiple of 4 _____ 66 is a multiple of 6 _____

89 is a multiple of 9 _____ 74 is a multiple of 21 _____