Maths
Multiplication and Division Y4

Knowledge
- Written methods
- Multiply by 1 and 0
- Divide by 1
- Multiply and divide by 6
- 6 times table and division facts
- Multiply and divide by 9
- 9 times table and division facts
- Multiply and divide by 7
- 7 times table and division facts
- 11 and 12 times table
- Factor pairs
- Efficient multiplication

Skills
- Multiply 2-digits by 1-digit
- Multiply 3-digits by 1-digit
- Divide 2-digits by 1-digit
- Divide 3-digits by 1-digit
- Multiply by 10
- Multiply by 100
- Divide by 10
- Divide by 100
- Multiply 3 numbers
- Correspondence problems

Vocabulary
Times tables, multiply by, divide by, array, bus stop, fact families, regrouping, groups, remainder, multiple, share, factor

Multiply by 10 and 100

H	T	O
		4
		4

4 x 10 = 40
When multiplying by 10, all digits move 1 space up the place value grid. This makes the number 10 times bigger.

4 x 100 = 400
When multiplying by 100, all digits move 2 spaces up the place value grid. This makes the number 100 times bigger.

Divide by 10 and 100

H	T	O
6	0	0
6	0	0

600 ÷ 10 = 60
When dividing by 10, the digits move 1 space down the place value grid. This makes the number 10 times smaller.

600 ÷ 100 = 6
When dividing by 100, the digits move 2 spaces down the place value grid. This makes the number 100 times smaller.

Multiplication Methods

27 x 4 = 108

$$\begin{array}{r} 2\ 7 \\ \times\quad 4 \\ \hline 1\ 0\ 8 \\ {\scriptstyle 2} \end{array}$$

234 x 6 =

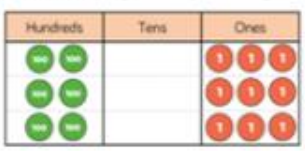
	H	T	O
	2	3	4
x			6
1	4	0	4
	2	2	

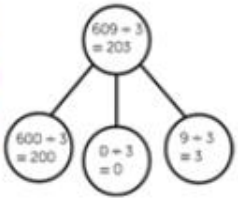
$$\begin{array}{r} 2\ 7 \\ \times\quad 4 \\ \hline 2\ 8 \\ 8\ 0 \\ \hline 1\ 0\ 8 \end{array}$$

(7x4)
(20x4)

Division Methods

234 ÷ 6 = 39





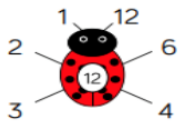
$$\begin{array}{r} 4\ 2\ 1 \\ 2\overline{)\ 8\ 4\ 2} \end{array}$$

$$\begin{array}{r} 0\ 3\ 9 \\ 6\overline{)\ 2\ {}^{2}3\ {}^{5}4} \end{array}$$

Factors

A factor is a whole number that multiplies with another number to make a product.

Factor x Factor = Product



The factors of 12 are 1, 2, 3, 4, 6, 12.

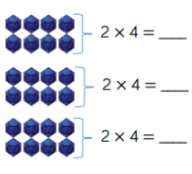
1 x 12 = 12 2 x 6 = 12 3 x 4 = 12

Times tables

1x table	2x table	3x table	4x table	5x table	6x table
1 × 1 = 1 2 × 1 = 2 3 × 1 = 3 4 × 1 = 4 5 × 1 = 5 6 × 1 = 6 7 × 1 = 7 8 × 1 = 8 9 × 1 = 9 10 × 1 = 10 11 × 1 = 11 12 × 1 = 12	1 × 2 = 2 2 × 2 = 4 3 × 2 = 6 4 × 2 = 8 5 × 2 = 10 6 × 2 = 12 7 × 2 = 14 8 × 2 = 16 9 × 2 = 18 10 × 2 = 20 11 × 2 = 22 12 × 2 = 24	1 × 3 = 3 2 × 3 = 6 3 × 3 = 9 4 × 3 = 12 5 × 3 = 15 6 × 3 = 18 7 × 3 = 21 8 × 3 = 24 9 × 3 = 27 10 × 3 = 30 11 × 3 = 33 12 × 3 = 36	1 × 4 = 4 2 × 4 = 8 3 × 4 = 12 4 × 4 = 16 5 × 4 = 20 6 × 4 = 24 7 × 4 = 28 8 × 4 = 32 9 × 4 = 36 10 × 4 = 40 11 × 4 = 44 12 × 4 = 48	1 × 5 = 5 2 × 5 = 10 3 × 5 = 15 4 × 5 = 20 5 × 5 = 25 6 × 5 = 30 7 × 5 = 35 8 × 5 = 40 9 × 5 = 45 10 × 5 = 50 11 × 5 = 55 12 × 5 = 60	1 × 6 = 6 2 × 6 = 12 3 × 6 = 18 4 × 6 = 24 5 × 6 = 30 6 × 6 = 36 7 × 6 = 42 8 × 6 = 48 9 × 6 = 54 10 × 6 = 60 11 × 6 = 66 12 × 6 = 72
7x table	**8x table**	**9x table**	**10x table**	**11x table**	**12x table**
1 × 7 = 7 2 × 7 = 14 3 × 7 = 21 4 × 7 = 28 5 × 7 = 35 6 × 7 = 42 7 × 7 = 49 8 × 7 = 56 9 × 7 = 63 10 × 7 = 70 11 × 7 = 77 12 × 7 = 84	1 × 8 = 8 2 × 8 = 16 3 × 8 = 24 4 × 8 = 32 5 × 8 = 40 6 × 8 = 48 7 × 8 = 56 8 × 8 = 64 9 × 8 = 72 10 × 8 = 80 11 × 8 = 88 12 × 8 = 96	1 × 9 = 9 2 × 9 = 18 3 × 9 = 27 4 × 9 = 36 5 × 9 = 45 6 × 9 = 54 7 × 9 = 63 8 × 9 = 72 9 × 9 = 81 10 × 9 = 90 11 × 9 = 99 12 × 9 = 108	1 × 10 = 10 2 × 10 = 20 3 × 10 = 30 4 × 10 = 40 5 × 10 = 50 6 × 10 = 60 7 × 10 = 70 8 × 10 = 80 9 × 10 = 90 10 × 10 = 100 11 × 10 = 110 12 × 10 = 120	1 × 11 = 11 2 × 11 = 22 3 × 11 = 33 4 × 11 = 44 5 × 11 = 55 6 × 11 = 66 7 × 11 = 77 8 × 11 = 88 9 × 11 = 99 10 × 11 = 110 11 × 11 = 121 12 × 11 = 132	1 × 12 = 12 2 × 12 = 24 3 × 12 = 36 4 × 12 = 48 5 × 12 = 60 6 × 12 = 72 7 × 12 = 84 8 × 12 = 96 9 × 12 = 108 10 × 12 = 120 11 × 12 = 132 12 × 12 = 144

Multiplying three numbers

3 x 2 x 4 =



3 x 2 x 4 = 3 x 8 = ___

Find the answer to 2 x 4 and then multiply that by 3 to get the answer.

2 x 4 = 8
3 x 8 = 24