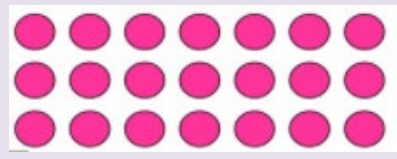


Multiplication and Division Facts

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



$3 \times 7 = 21$ $7 \times 3 = 21$
 Multiplication is **commutative**

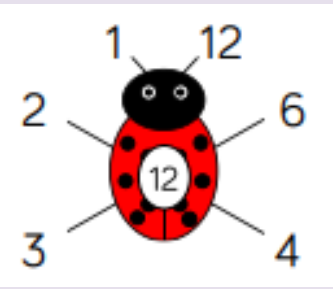
$21 \div 7 = 3$ $21 \div 3 = 7$
 Division is not commutative

Multiplication and division are
inverse operations

Vocabulary

multiply times	Repeatedly adding the same amount - the amount increases
multiple	The result of multiplying a number by a whole number
factors	Numbers that we multiply together to get a product
product	The answer when two or more factors are multiplied together
divide	Split into equal parts or groups
remainder	An amount left over after division
commutative	Changing the order of the calculation gives the same result
inverse	The reverse of - <i>multiplication is the inverse of division</i>
dividend	In division, the number that is divided.
divisor	In division, the number by which another is divided.
quotient	The result of a division

Factor Pairs



1×12 and 12×1
 2×6 and 6×2
 3×4 and 4×3

Factors are 1 and 12
 2 and 6
 3 and 4

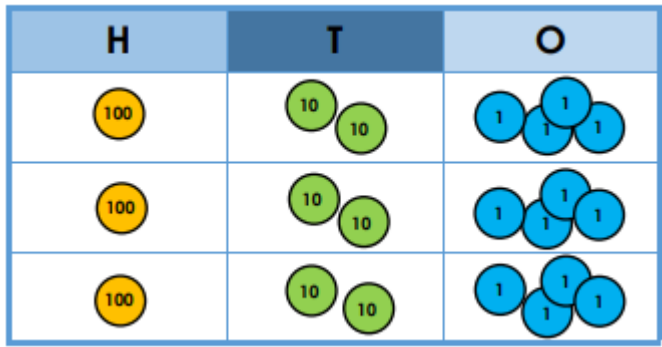
Place Value with X and ÷

$5 \times 1 = 5$ $5 \div 1 = 5$
 $5 \times 10 = 50$ $50 \div 10 = 5$
 $5 \times 100 = 500$ $500 \div 100 = 5$

Formal methods

124 x 3

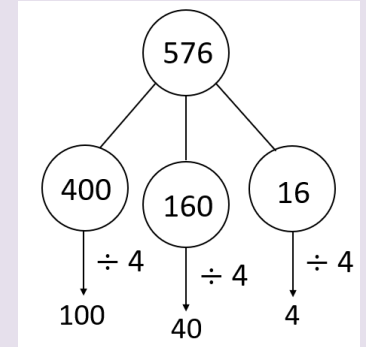
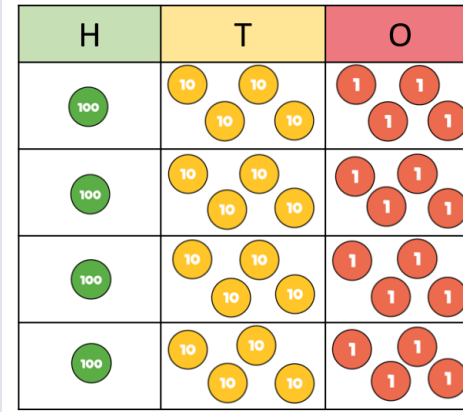
factor x factor = product



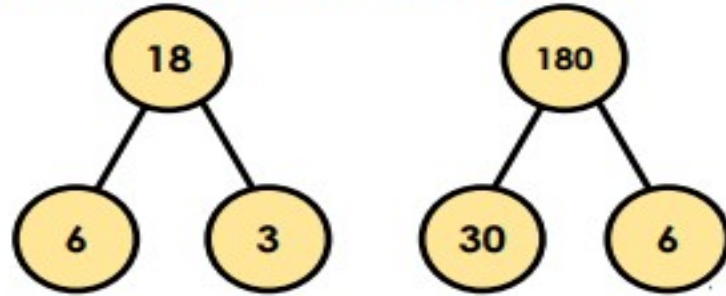
	1	2	4
x			3
	3	7	2

574 ÷ 4

dividend ÷ divisor = quotient

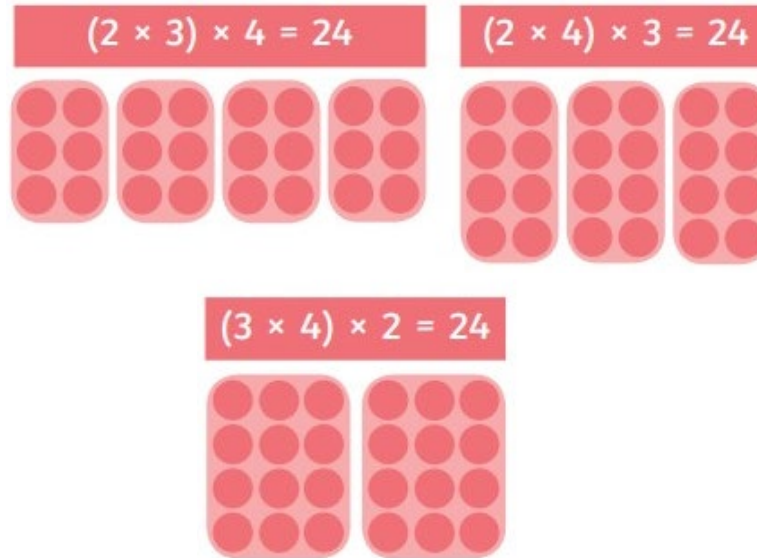


Related facts from Times Tables



$3 \times 6 = 18$	$6 \times 3 = 18$
$18 \div 3 = 6$	$18 \div 6 = 3$
$30 \times 6 = 180$	$60 \times 3 = 180$
$180 \div 30 = 6$	$180 \div 60 = 3$

Using factors to multiply



Multiply three numbers

4 x 3 x 6 = 72

$4 \times 3 \times 6 = 72$

$4 \times 6 \times 3 = 72$

$3 \times 4 \times 6 = 72$

$3 \times 6 \times 4 = 72$

$6 \times 4 \times 3 = 72$

$6 \times 3 \times 4 = 72$