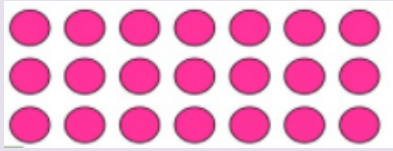
Multiplication and Division Facts

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 x 7 = 21 7 x 3 = 21

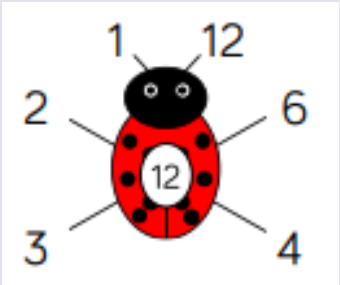
Multiplication is **commutative**

21 ÷ 7 = 3 21 ÷ 3 = 7

Division is not commutative

Multiplication and division are **inverse** operations

Factor Pairs



1 x 12 and 12 x 1
2 x 6 and 6 x 2
3 x 4 and 4 x 3

Factors are 1 and 12
2 and 6
3 and 4

Place Value with X and ÷

5 x 1 = 5 5 ÷ 1 = 5

5 x 10 = 50 50 ÷ 10 = 5

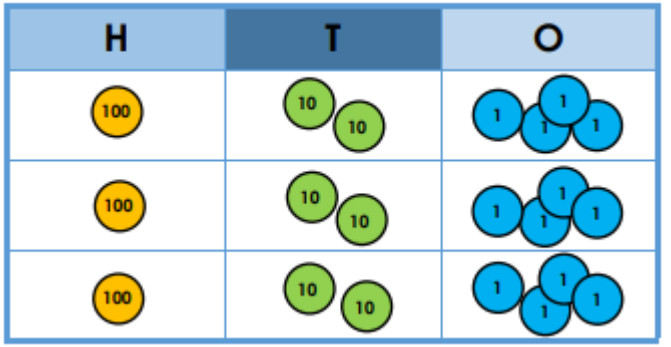
5 x 100 = 500 500 ÷ 100 = 5

Vocabulary

array	A set of objects arranged in order. Arrays make counting easier.
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 - *multiplication is the inverse of division*

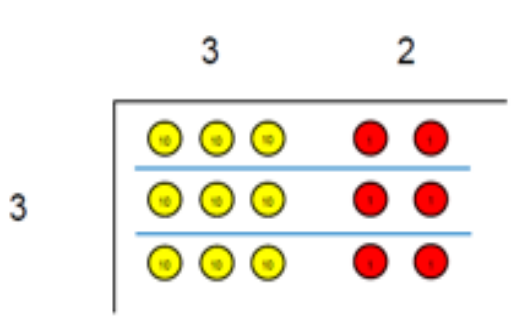
Formal methods

124 x 3



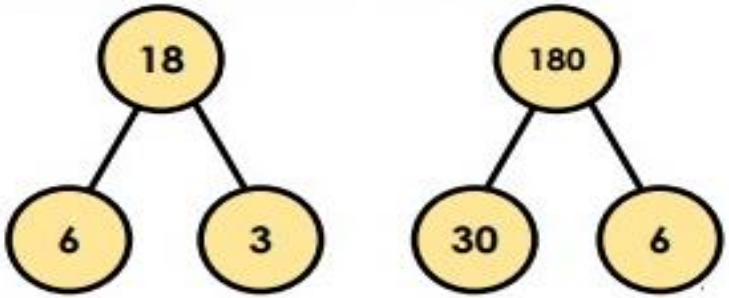
	1	2	4
x			3
	3	7	2
		1	

96 ÷ 3



96 ÷ 3 = 32

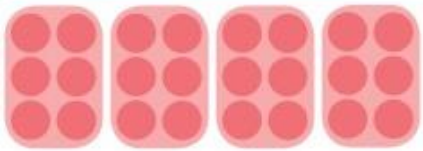
Related facts from Times Tables



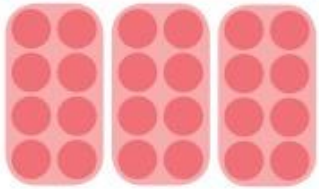
3 x 6 = 18	6 x 3 = 18
18 ÷ 3 = 6	18 ÷ 6 = 3
30 x 6 = 180	60 x 3 = 180
180 ÷ 30 = 6	180 ÷ 60 = 3

Using factors to multiply

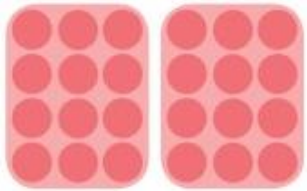
(2 × 3) × 4 = 24



(2 × 4) × 3 = 24



(3 × 4) × 2 = 24



Multiply three numbers

4 x 3 x 6 = 72

4 x 3 x 6 = 72
4 x 6 x 3 = 72
3 x 4 x 6 = 72

3 x 6 x 4 = 72
6 x 4 x 3 = 72
6 x 3 x 4 = 72