



Multiplication using Numicon & Cuisenaire



New Curriculum 2014

Number – multiplication and division

Statutory requirements

Pupils should be taught to:

- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication ($\times$), division ($\div$) and equals (=) signs
- show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.



X Commutative
 Property Product

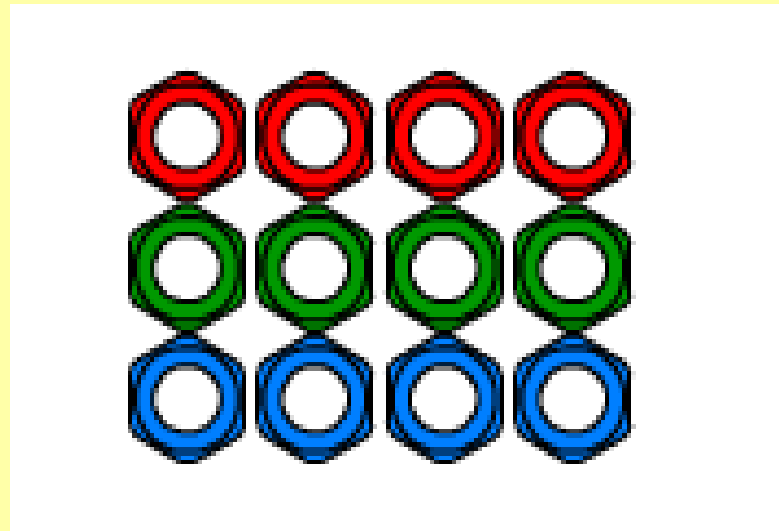
Times Tables

Groups of
Lots of Repeated
 Addition

Arrays Inverse of division



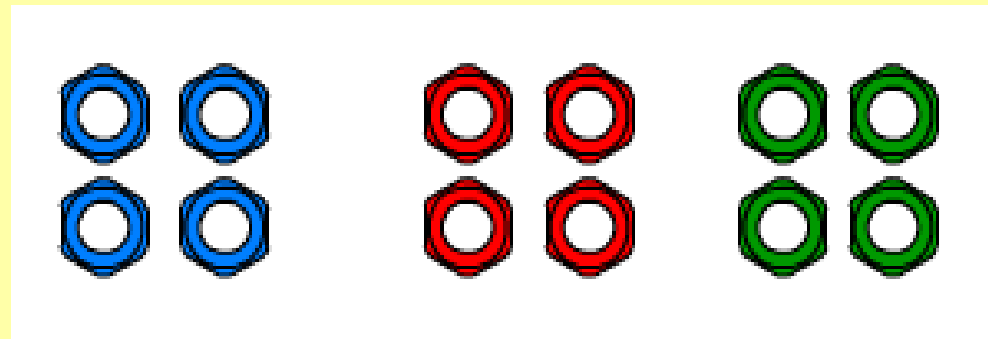
Arrays





Repeated Addition

$$4 + 4 + 4$$

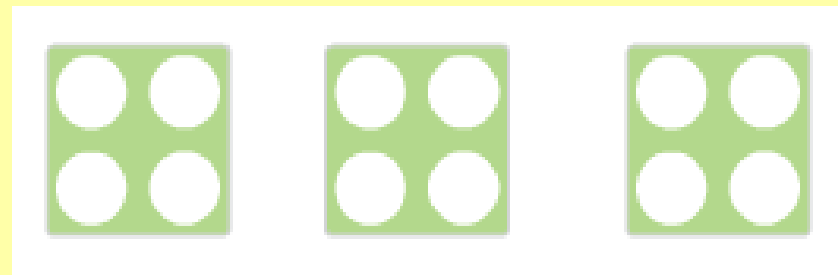




3 Groups of 4

3 Lots of 4

Numicon

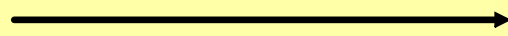


Cuisenaire

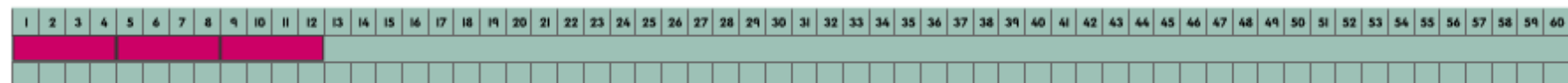
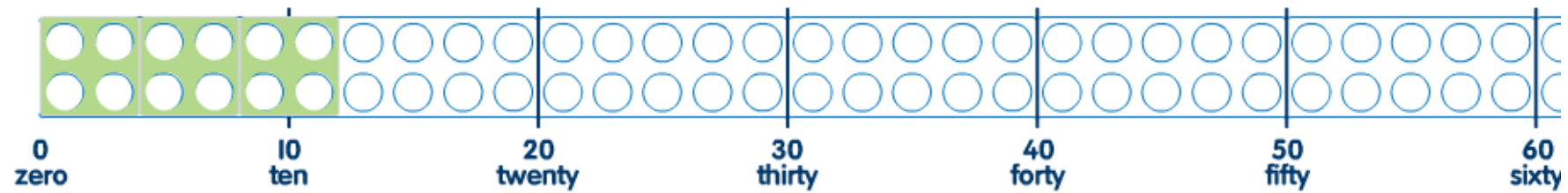




3 lots of 4



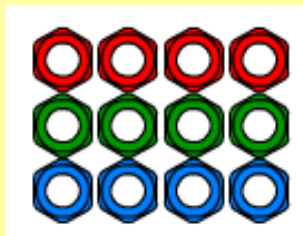
$$3 \times 4 = 12$$





Commutative Property

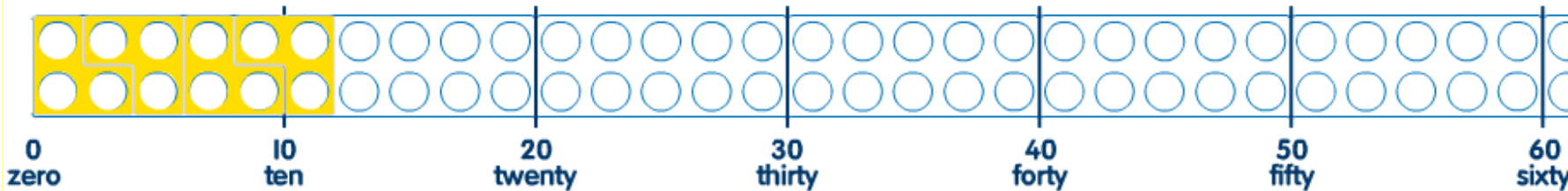
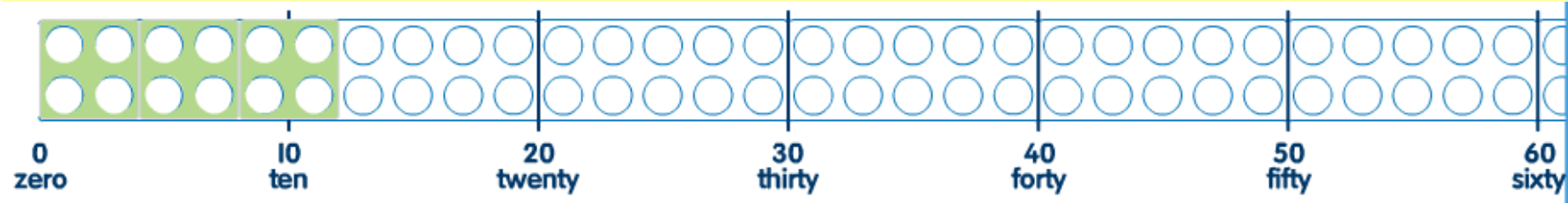
$$3 \times 4 = 12 \quad \text{and} \quad 4 \times 3 = 12$$





Commutative Property

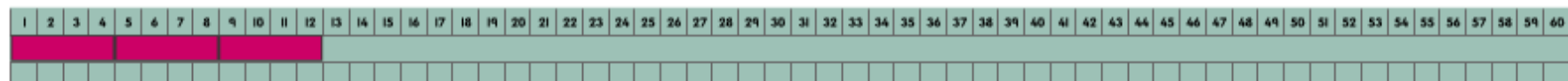
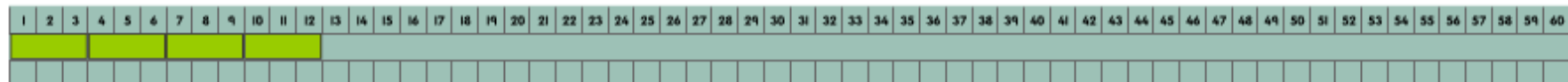
$$3 \times 4 = 12 \quad \text{and} \quad 4 \times 3 = 12$$





Commutative Property

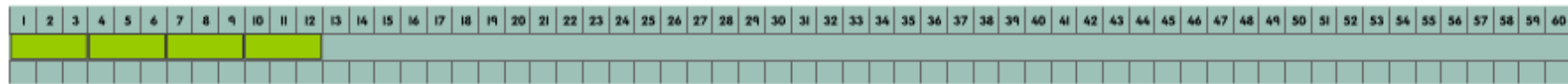
$$3 \times 4 = 12 \quad \text{and} \quad 4 \times 3 = 12$$



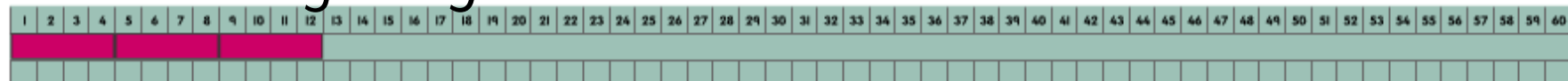


Inverse - division

How many 3s go into 12?



How many 4s go into 12?





Product

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
3				4				3											

$$3 \times 4 = 12$$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
4			3			4			3										

$$4 \times 3 = 12$$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
6		2		6		2		6		2									

$$6 \times 2 = 12$$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2						6													

$$2 \times 6 = 12$$



Times Tables



$$1 \times 2 = 2$$

$$2 \times 2 = 4$$

$$3 \times 2 = 6$$

$$4 \times 2 = 8$$

$$5 \times 2 = 10$$

$$6 \times 2 = 12$$

$$7 \times 2 = 14$$

$$8 \times 2 = 16$$

$$9 \times 2 = 18$$

$$10 \times 2 = 20$$

$$11 \times 2 = 22$$

$$12 \times 2 = 24$$

Thank You