

Year 3 Multiplication and Division Knowledge

$3 \times 2 =$
times tables

\times
multiply by

\div
divide by

array

$7 + 9 = 16$
 $9 + 7 = 16$
 $16 - 7 = 9$
 $16 - 9 = 7$
fact families

regrouping

multiplication

- lots of
- times
- multiply
- groups of
- product
- multiplied by
- multiple of
- repeated addition
- array

What is... lots of...?
 What is the product of... and... ?
 What is... times... ?
 What is... group of... ?
 What is... multiplied by... ?

division

- divide
- divided by
- divided into
- share
- share equally
- equal groups of

What is... divided by...?
 What is... shared by...?
 How many groups of... are in...?

Using Arrays for Calculations

$4 \times 8 = 32$
 $32 \div 8 = 4$

$8 \times 4 = 32$
 $32 \div 4 = 8$

$5 \times 3 = 15$
 $15 \div 3 = 5$

$3 \times 5 = 15$
 $15 \div 5 = 3$

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

Related Number Facts

$3 \times 4 = 12$

$4 \times 3 = 12$

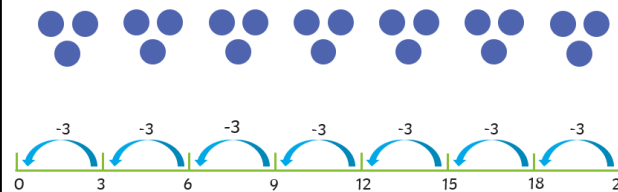
$30 \times 4 = 120$

$40 \times 3 = 120$

Number Line Division Method

$$21 \div 3 = ?$$

There are 7 groups of 3.



Written Multiplication Methods - No Regrouping

Tens	Ones

$23 \times 3 = 69$

	T	O
	2	3
\times		3
	6	9

Written Multiplication Methods - With Regrouping

Tens	Ones

$24 \times 4 = 96$

	T	O
	2	4
\times		4
	9	6
	1	

Written Division Methods - No Regrouping

Tens	Ones

	2	1
4	8	4

$84 \div 4$

$80 \div 4$
 $4 \div 4$

Written Division Methods - With Regrouping

Tens	Ones

	1	5
3	4	15

$45 \div 3$

$30 \div 3$
 $15 \div 3$