

'I WILL SHINE'

Multiplication and division

Prior learning

Let's activate my long-term memory!
In Y3, I learnt to...

- recall my 3, 4 and 8 times tables and division facts

- multiply and divide using the times tables that I know, including for two-digit numbers times one-digit numbers, using mental and written methods

- solve problems (including scaling problems), including missing number problems, involving multiplication and division

Key vocabulary

What words will I use in this unit?
Do I recognise any already?

multiply	times
product	lots/groups of
divide	share group
factor pairs	commutativity
inverse	estimate

Tools and drawings

Which tools and drawing might I use to support my learning?

PV grid	Dienes
counters	bar model

Current learning

In this unit, I will learn how to...

- ✦ Multiply by 10
- ✦ Multiply by 100
- ✦ Divide by 10
- ✦ Divide by 100
- ✦ Multiply by 1 and 0
- ✦ Divide by 1 and itself
- ✦ Multiply and divide by 3
- ✦ The 3 times table
- ✦ 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
- ✦ Multiply 3 numbers
- ✦ Factor pairs
- ✦ Efficient multiplication
- ✦ Written methods
- ✦ Multiply 2 digits by 1 digit
- ✦ Multiply 3 digits by 1 digit
- ✦ Divide 2 digits by 1 digit
- ✦ Divide 3 digits by 1 digit
- ✦ Correspondence problems

Knowledge Organiser

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

Factor pairs and Commutativity

20

$5 \times 4 = 20$

$4 \times 5 = 20$

The factors of 20 are 1, 2, 4, 5, 10 and 20.

The factor pairs are:

1 and 20 2 and 10 4 and 5

Th	H	T	O
	5	4	3
x			4
	1	2	
	1	6	0
	2	0	0
	2	1	7

(4×3)
 (4×40)
 (4×500)

Th	H	T	O
	5	4	3
x			4
	2	1	7
	1	1	

Remember to move any regrouped numbers into the next column. After the next multiplication, add the regrouped number to the answer.

$69 \div 3 = 23$	23
	3 69
	69
23	23
23	23