Multiplication and Division Knowledge Organiser			
Key Vocabulary	Factors	Prime Numbers	
multiply	A factor is a number that divides into another number exactly, without leaving a remainder.	1 2 3 4 5 6 7 8 9 10	
groups of	A common factor is a factor of 2	11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	
lots of	or more numbers.	31 32 33 34 35 36 37 38 39 40	
times	Factors of 6  1 2 4 5 10 20 2	41     42     43     44     45     46     47     48     49     50       51     52     53     54     55     56     57     58     59     60	
divide	The factors of 20 are 1, 2, 4, 5, 10 and 20.	61 62 63 64 65 66 67 68 69 70	
share	The factor pairs are:  1 and 20 2 and 10 5	71     72     73     74     75     76     77     78     79     80       81     82     83     84     85     86     87     88     89     90	
remainder	4 and 5 Factors of 15	91 92 93 94 95 96 97 98 99 100	
factor	Squared <sup>2</sup> and Cubed <sup>3</sup> Numbers	Related Calculations	
multiple		8 × 9 = 72	
product		80 × 9 = 720 90 × 8 = 720	
	$2^2 = 4$ $2^3 = 8$ $5^2 = 25$ $5^3 = 125$	72 ÷ 9 = 8	
twinkl visit twinkl.com	2 × 2 = 4	720 ÷ 9 = 80	

## **Short Multiplication**

## Long Multiplication

$$2543 \times 7 = 17801$$

	2	5	4	3
×				7
1	7	8	0	1
1	3	3	2)-	

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

2543	×	67	=	170	381
<b>4343</b>		$\mathbf{O}$		TIO	OOT

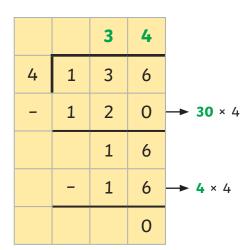
		2	5	4	3
	×			6	7
	1	7	8	0	1
	1	3	3	2	
1	<b>5</b>	2	<b>5</b>	8	<u>O</u>
1	7	0	3	8	1
	1	1			

Before multiplying by the number in the tens column, remember to use zero as a placeholder because the 6 in 67 is 6 tens (60).

Division

## **Short Division**

## $136 \div 4 = 34$



		3	8
4	1	<sup>1</sup> 5	2

15 ÷ 4 = 3 remainder 3

Remember to regroup any remainders and move them into the next column.



 $28 \div 5 = 5$  remainder 3

If your calculation has a remainder, remember to record it in the answer using the letter  ${\bf r}.$ 

