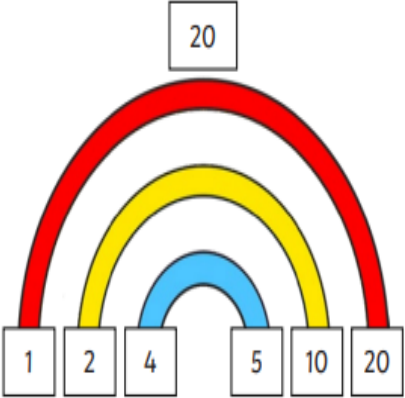
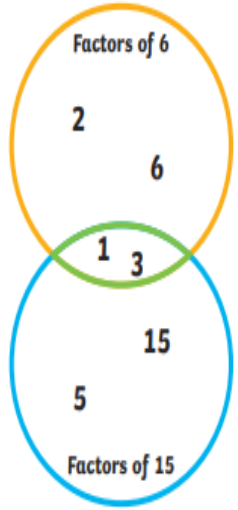
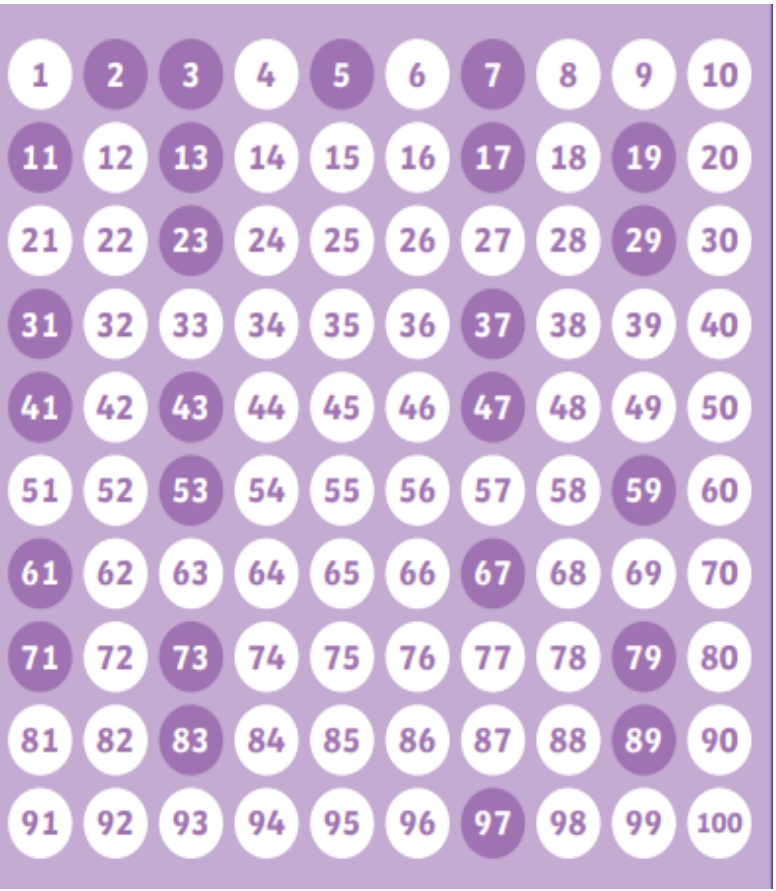
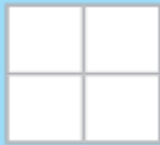




## Year 5 Multiplication and Division

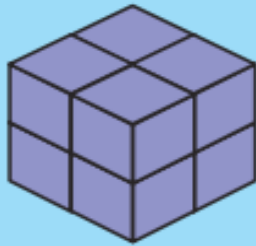
Key Vocabulary	Factors	Prime Numbers
multiply	<p>A factor is a number that divides into another number exactly, without leaving a remainder.</p>  <p>The factors of 20 are 1, 2, 4, 5, 10 and 20.</p> <p>The factor pairs are:            1 and 20            2 and 10            4 and 5</p> <p>A common factor is a factor of 2 or more numbers.</p> 	
groups of		
lots of		
times		
divide		
share		
remainder		
factor		
multiple		
product		

## Squared<sup>2</sup> and Cubed<sup>3</sup> Numbers



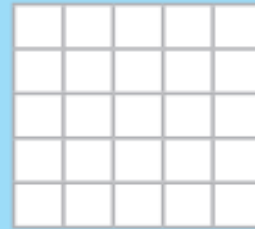
$$2^2 = 4$$

$$2 \times 2 = 4$$



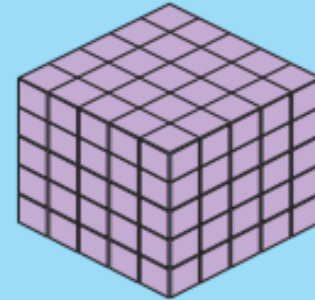
$$2^3 = 8$$

$$2 \times 2 \times 2 = 8$$



$$5^2 = 25$$

$$5 \times 5 = 25$$



$$5^3 = 125$$

$$5 \times 5 \times 5 = 125$$

## Related Calculations

$$8 \times 9 = 72$$

$$80 \times 9 = 720$$

$$72 \div 9 = 8$$

$$720 \div 9 = 80$$

$$9 \times 8 = 72$$

$$90 \times 8 = 720$$

$$72 \div 8 = 9$$

$$720 \div 8 = 90$$

## Short Multiplication

$$2543 \times 7 = 17801$$

	2	5	4	3
×				7
<b>1</b>	<b>7</b>	<b>8</b>	<b>0</b>	<b>1</b>
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.

## Long Multiplication

$$2543 \times 67 = 170381$$

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

$$136 \div 4 = 34$$

		3	4		
4		1	3	6	
-		1	2	0	→ 30 × 4
			1	6	
		-	1	6	→ 4 × 4
				0	

twinkl.com

## Short Division

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

$15 \div 4 = 3$  remainder 3  
Remember to regroup any remainders and move them into the next column.

		4	5	5	r	3
5		2	2 <sup>7</sup>	2 <sup>8</sup>		

$28 \div 5 = 5$  remainder 3  
If your calculation has a remainder, remember to record it in the answer using the letter **r**.

