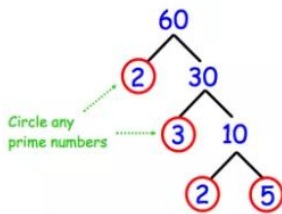
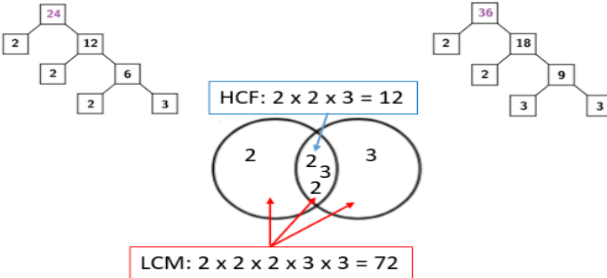
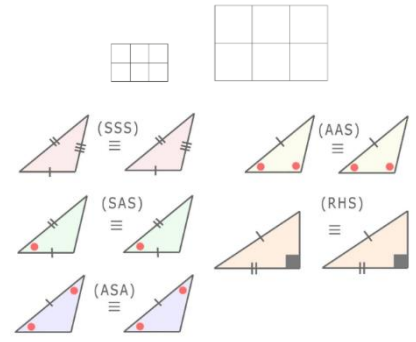
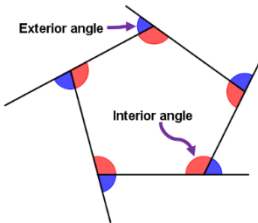
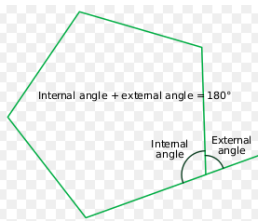
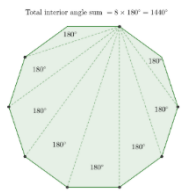
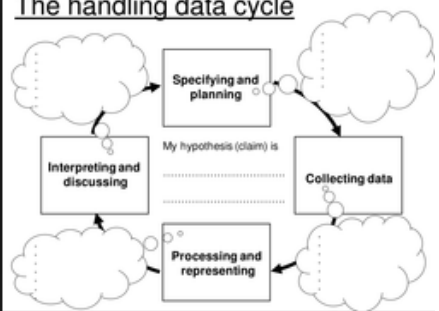
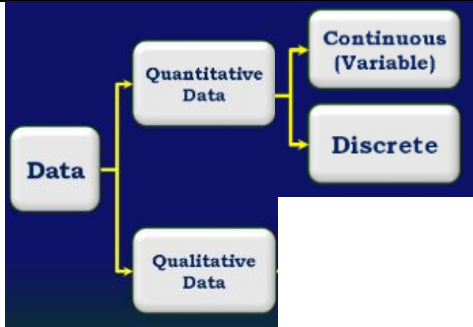


Maths Subject/Topic: Number	Subject/Topic: Number	Subject/Topic: 2D Shapes																																																																	
<p>Key ideas: Reciprocal, Fractions. Laws of Indices. Upper and Lower Bounds.</p>	<p>Key ideas: Product of Primes HCF LCM</p>	<p>Key ideas: Symmetry, Similarity and Congruence</p>																																																																	
<table border="1" data-bbox="183 279 555 491"> <thead> <tr> <th>Fraction</th> <th>Reciprocal</th> </tr> </thead> <tbody> <tr> <td>$\frac{1}{2}$</td> <td>$\frac{2}{1}$</td> </tr> <tr> <td>$\frac{5}{6}$</td> <td>$\frac{6}{5}$</td> </tr> <tr> <td>$-\frac{17}{3}$</td> <td>$-\frac{3}{17}$</td> </tr> </tbody> </table> <table border="1" data-bbox="577 279 797 491"> <thead> <tr> <th>Number</th> <th>Reciprocal as Fraction</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>$\frac{1}{3}$</td> </tr> <tr> <td>8</td> <td>$\frac{1}{8}$</td> </tr> <tr> <td>50</td> <td>$\frac{1}{50}$</td> </tr> <tr> <td>1000</td> <td>$\frac{1}{1000}$</td> </tr> <tr> <td>5897</td> <td>$\frac{1}{5897}$</td> </tr> </tbody> </table> <div data-bbox="183 502 537 782" style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; background-color: #007bff; color: white; padding: 2px;">Mixed → Improper</p> <p style="font-size: small;">We can do this conversion without drawing a diagram.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; padding: 5px;"> $2\frac{2}{3} = \frac{8}{3}$ <p style="font-size: x-small;">There are 3 thirds in 1. So there are $2 \times 3 + 2$ thirds in $\frac{8}{3}$.</p> <p style="font-size: x-small;">We also have an extra 2 thirds, so add this on. In total, $2 \times 3 + 2$ thirds 8 thirds altogether</p> </td> <td style="text-align: center; padding: 5px;"> $3\frac{5}{6} = \frac{23}{6}$ <p style="font-size: x-small;">There are 6 sixths in 1. So there are $3 \times 6 + 5$ sixths in $\frac{23}{6}$.</p> <p style="font-size: x-small;">We also have an extra 5 sixths, so add this on. In total, $3 \times 6 + 5$ sixths 23 sixths altogether</p> </td> </tr> </table> </div> <div data-bbox="571 518 896 1005" style="border: 1px solid black; padding: 5px;"> <p style="font-size: x-small; text-align: center;">Laws of Indices</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #007bff; color: white;">Rule</th> <th style="background-color: #007bff; color: white;">Example</th> </tr> </thead> <tbody> <tr> <td>$a^m \times a^n = a^{m+n}$</td> <td>$2^5 \times 2^3 = 2^8$</td> </tr> <tr> <td>$a^m \div a^n = a^{m-n}$</td> <td>$5^7 \div 5^3 = 5^4$</td> </tr> <tr> <td>$(a^m)^n = a^{m \times n}$</td> <td>$(10^3)^7 = 10^{21}$</td> </tr> <tr> <td>$a^1 = a$</td> <td>$17^1 = 17$</td> </tr> <tr> <td>$a^0 = 1$</td> <td>$34^0 = 1$</td> </tr> <tr> <td>$\left(\frac{a}{b}\right)^m = \frac{a^m}{b^m}$</td> <td>$\left(\frac{5}{6}\right)^2 = \frac{25}{36}$</td> </tr> <tr> <td>$a^{-m} = \frac{1}{a^m}$</td> <td>$9^{-2} = \frac{1}{81}$</td> </tr> <tr> <td>$a^{\frac{x}{y}} = \sqrt[y]{a^x}$</td> <td>$49^{\frac{1}{2}} = \sqrt{49} = 7$</td> </tr> </tbody> </table> </div> <div data-bbox="183 813 537 1029" style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Rules for Counting Sig Figs</p> <ul style="list-style-type: none"> • Nonzero integers always count as significant figures – 3456 has 4 sig figs. • Leading zeros are never significant – 0.000757 has 3 sig figs • Captive zeros always count as significant figures – 16.07 has 4 sig figs • Trailing zeros are significant only if the number contains a decimal point. – 9.300 has 4 sig figs </div>	Fraction	Reciprocal	$\frac{1}{2}$	$\frac{2}{1}$	$\frac{5}{6}$	$\frac{6}{5}$	$-\frac{17}{3}$	$-\frac{3}{17}$	Number	Reciprocal as Fraction	3	$\frac{1}{3}$	8	$\frac{1}{8}$	50	$\frac{1}{50}$	1000	$\frac{1}{1000}$	5897	$\frac{1}{5897}$	$2\frac{2}{3} = \frac{8}{3}$ <p style="font-size: x-small;">There are 3 thirds in 1. So there are $2 \times 3 + 2$ thirds in $\frac{8}{3}$.</p> <p style="font-size: x-small;">We also have an extra 2 thirds, so add this on. In total, $2 \times 3 + 2$ thirds 8 thirds altogether</p>	$3\frac{5}{6} = \frac{23}{6}$ <p style="font-size: x-small;">There are 6 sixths in 1. So there are $3 \times 6 + 5$ sixths in $\frac{23}{6}$.</p> <p style="font-size: x-small;">We also have an extra 5 sixths, so add this on. In total, $3 \times 6 + 5$ sixths 23 sixths altogether</p>	Rule	Example	$a^m \times a^n = a^{m+n}$	$2^5 \times 2^3 = 2^8$	$a^m \div a^n = a^{m-n}$	$5^7 \div 5^3 = 5^4$	$(a^m)^n = a^{m \times n}$	$(10^3)^7 = 10^{21}$	$a^1 = a$	$17^1 = 17$	$a^0 = 1$	$34^0 = 1$	$\left(\frac{a}{b}\right)^m = \frac{a^m}{b^m}$	$\left(\frac{5}{6}\right)^2 = \frac{25}{36}$	$a^{-m} = \frac{1}{a^m}$	$9^{-2} = \frac{1}{81}$	$a^{\frac{x}{y}} = \sqrt[y]{a^x}$	$49^{\frac{1}{2}} = \sqrt{49} = 7$	<p style="text-align: center; color: blue;">Product of Primes</p> <p style="text-align: center; color: red;">Write 60 as a product of primes</p> <div style="text-align: center;">  </div> <p style="text-align: center; color: blue;">$60 = 2 \times 2 \times 3 \times 5$</p> <p style="text-align: center; color: blue;">$60 = 2^2 \times 3 \times 5$</p> <p style="text-align: center; color: green;">In index form</p> <p style="text-align: center; color: red;">You will need to know the primes</p> <p style="text-align: center; color: green;">2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31 ...</p> <hr/> <p style="text-align: center; color: red;">HCF and LCM</p> <p style="text-align: center;">Find the HCF and LCM of 24 and 36</p> <div style="text-align: center;">  </div> <p style="text-align: center; border: 1px solid blue; padding: 2px;">HCF: $2 \times 2 \times 3 = 12$</p> <p style="text-align: center; border: 1px solid red; padding: 2px;">LCM: $2 \times 2 \times 2 \times 3 \times 3 = 72$</p>	<table border="1" data-bbox="1617 279 2128 582"> <thead> <tr> <th>Name</th> <th>Line Symmetry Diagram</th> <th>Line Symmetry Count</th> <th>Rotation Symmetry Diagram</th> <th>Rotation Symmetry Order</th> </tr> </thead> <tbody> <tr> <td>Parallelogram</td> <td></td> <td>0</td> <td></td> <td>2</td> </tr> <tr> <td>Rectangle</td> <td></td> <td>2</td> <td></td> <td>2</td> </tr> <tr> <td>Trapezoid</td> <td></td> <td>0/1</td> <td>None</td> <td>0</td> </tr> <tr> <td>Regular Polygon</td> <td></td> <td>Equal to the number of sides of the regular polygon</td> <td></td> <td>Equal to the number of sides of the regular polygon</td> </tr> </tbody> </table> <p style="text-align: center; color: blue;">What are similar shapes?</p> <p style="font-size: x-small;">Shapes and solids may be enlarged or reduced in size. When this is done with all measurements kept in proportion, the resulting shape or solid is said to be mathematically similar to the original.</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Congruent Triangles Above</p>	Name	Line Symmetry Diagram	Line Symmetry Count	Rotation Symmetry Diagram	Rotation Symmetry Order	Parallelogram		0		2	Rectangle		2		2	Trapezoid		0/1	None	0	Regular Polygon		Equal to the number of sides of the regular polygon		Equal to the number of sides of the regular polygon
Fraction	Reciprocal																																																																		
$\frac{1}{2}$	$\frac{2}{1}$																																																																		
$\frac{5}{6}$	$\frac{6}{5}$																																																																		
$-\frac{17}{3}$	$-\frac{3}{17}$																																																																		
Number	Reciprocal as Fraction																																																																		
3	$\frac{1}{3}$																																																																		
8	$\frac{1}{8}$																																																																		
50	$\frac{1}{50}$																																																																		
1000	$\frac{1}{1000}$																																																																		
5897	$\frac{1}{5897}$																																																																		
$2\frac{2}{3} = \frac{8}{3}$ <p style="font-size: x-small;">There are 3 thirds in 1. So there are $2 \times 3 + 2$ thirds in $\frac{8}{3}$.</p> <p style="font-size: x-small;">We also have an extra 2 thirds, so add this on. In total, $2 \times 3 + 2$ thirds 8 thirds altogether</p>	$3\frac{5}{6} = \frac{23}{6}$ <p style="font-size: x-small;">There are 6 sixths in 1. So there are $3 \times 6 + 5$ sixths in $\frac{23}{6}$.</p> <p style="font-size: x-small;">We also have an extra 5 sixths, so add this on. In total, $3 \times 6 + 5$ sixths 23 sixths altogether</p>																																																																		
Rule	Example																																																																		
$a^m \times a^n = a^{m+n}$	$2^5 \times 2^3 = 2^8$																																																																		
$a^m \div a^n = a^{m-n}$	$5^7 \div 5^3 = 5^4$																																																																		
$(a^m)^n = a^{m \times n}$	$(10^3)^7 = 10^{21}$																																																																		
$a^1 = a$	$17^1 = 17$																																																																		
$a^0 = 1$	$34^0 = 1$																																																																		
$\left(\frac{a}{b}\right)^m = \frac{a^m}{b^m}$	$\left(\frac{5}{6}\right)^2 = \frac{25}{36}$																																																																		
$a^{-m} = \frac{1}{a^m}$	$9^{-2} = \frac{1}{81}$																																																																		
$a^{\frac{x}{y}} = \sqrt[y]{a^x}$	$49^{\frac{1}{2}} = \sqrt{49} = 7$																																																																		
Name	Line Symmetry Diagram	Line Symmetry Count	Rotation Symmetry Diagram	Rotation Symmetry Order																																																															
Parallelogram		0		2																																																															
Rectangle		2		2																																																															
Trapezoid		0/1	None	0																																																															
Regular Polygon		Equal to the number of sides of the regular polygon		Equal to the number of sides of the regular polygon																																																															
<p>Keywords /Key Language:</p>	<p>Keywords /Key Language:</p>	<p>Keywords /Key Language:</p>																																																																	
<p>Reciprocal: Two numbers whose product is 1</p> <p>Significant Figure Rounding: Start counting from the first non-zero digit.</p> <p>Mixed Number: Contains a whole number and a fraction.</p> <p>Improper Fraction: Has a value greater than one with the numerator being bigger than the denominator.</p> <p>Indices: Powers</p> <p>Bounds: The maximum and minimum value before rounding.</p>	<p>HCF: Highest Common Factor</p> <p>LCM: Lowest Common Multiple</p> <p>Product: Numbers multiplied together</p> <p>Prime Number: Number with exactly two factors, itself and 1</p>	<p>Congruent: Identical shapes</p> <p>SSS – Side Side Side</p> <p>ASA- Angle Side Angle</p> <p>RHS – Right angle, Hypotenuse and Side etc.</p> <p>Similar: Shapes where each side has been enlarged by the same scale factor.</p>																																																																	

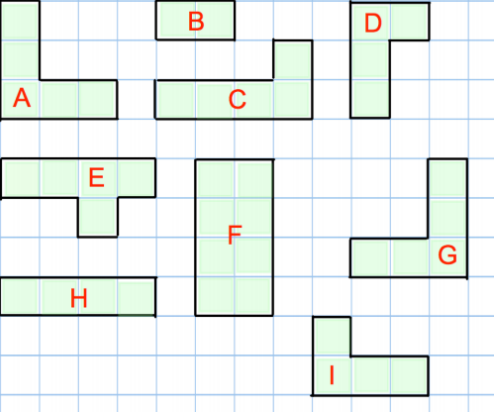
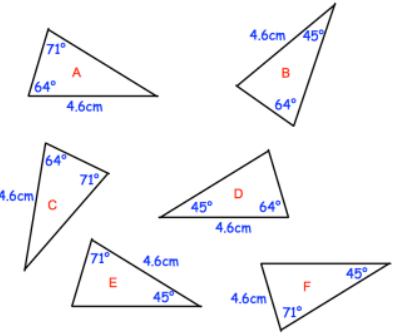
Maths Subject/Topic: Angles	Subject/Topic: Data
Key ideas: Interior and Exterior. Key Rules	Key ideas: Sampling Methods, Types of Data, Data Handling Cycle, 2 Way Tables
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p>Exterior angles of any polygon sum to 360° Interior angles are on the inside.</p> </div> <div style="width: 45%;"> <p>Exterior angles of any polygon sum to 360° Interior angles are on the inside.</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="width: 45%;">  </div> <div style="width: 45%;">  </div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>The handling data cycle</p>  </div> <div style="width: 45%;">  </div> </div> <p>➤ The most basic sampling method: Simple Random Sampling</p> <p>When performing simple random sampling, every member of the population (N) has an equal chance of being selected for your sample (n).</p> <p>-Arguably the best sampling method, as your sample is almost guaranteed to be representative of your population. -Hardly ever used due to being too impractical.</p> <p>Sampling with Replacement</p> <ul style="list-style-type: none"> When a number is selected for a sample, it is not removed from the population. <p>Stratified Sampling</p> <ul style="list-style-type: none"> Population is divided into groups. Random samples are drawn from each group. <p>Systematic Sampling</p> <ul style="list-style-type: none"> Population is arranged in sequential order. Select a random starting point. Select every "kth" item. <p>Cluster Sampling</p> <ul style="list-style-type: none"> Population is divided into sections. Some sections are randomly selected. Every item in selected sections is included in sample. 1.
Keywords /Key Language: Interior, Exterior, sum.	Keywords /Key Language: Raw Data, Primary Data, Secondary Data, Qualitative, Quantitative, Discrete, Continuous.
<p>Exterior Angle: The outside angle when the side of the polygon is extended.</p> <p>Interior angle: The inside angle.</p> <p>Interior and Exterior angles are on a straight line.</p> <p>Tessellation: Shapes that fit together without any Gaps.</p> <p>Bearings: Measure clockwise from the North line. Always 3 digits eg. 045 degrees ,</p>	<p>Data Handling Cycle: The process you go through to carry out statistical analysis.</p> <p>Types of Data – Qualitative is data that gives you a worded solution Quantitative is data that is numerical Discrete data is data that is counted; it does not take all values in a given range. Continuous data is data that is measured; It can take any value within a given range.</p> <p>Two way tables: Where each value gives you two pieces of information</p>

What is your favorite sport to watch on television?

	Football	Basketball	Baseball
Males	40	22	15
Females	12	16	45
Total	52	38	60

Gender compared to handedness

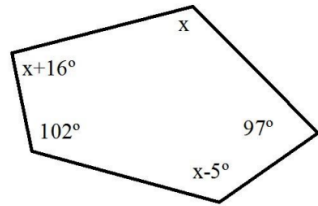
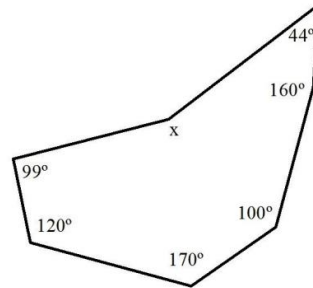
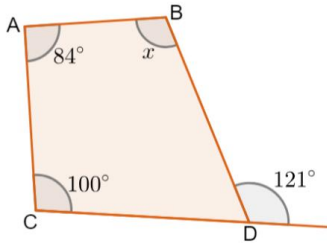
	Handed		
	Left	Right	
Female	7	46	53
Male	5	63	68
	12	109	121

Maths Subject/Topic: Number	Subject/Topic: Number	Subject/Topic: 2D Shapes																																										
Key ideas: Reciprocal, Fractions. Laws of indices Upper and Lower Bounds	Key ideas: Product of Primes HCF LCM	Key ideas: Symmetry, Similarity and Congruence																																										
<p>1. Fill in the blanks</p> $\frac{1}{9} \times \square = 1$ <p>2. Write down the reciprocal of 5</p> <p>3. Write down the reciprocal of 0.4(1)</p> <p>4. The measurements of a rectangle are given as 4.6 cm and 2.8cm, correct to the nearest 0.1cm. Find the greatest and least possible values of the area of the rectangle and the largest possible error in area?</p>	<p>Express 100 as a product of its prime factors. Write 42 as a product of its prime factors.</p> <p>Hence find the HCF and LCM of 100 and 42.</p>	 <p>Find a shape that is congruent to A. Find another pair of congruent shapes. Find a shape that is mathematically similar to B.</p>																																										
<p>Matthew weighed 81kg before training for a marathon</p> <p>His weight decreased by a $\frac{1}{9}$.</p> <p>Work out his weight after the marathon.</p>	<p>A number is written as a product of its prime factors as $2 \times 3^2 \times 5$</p> <p>Work out the number.</p>	<p>Triangles A and B are Similar. Tick correct box</p> <table border="0"> <tr> <td></td> <td style="text-align: center;">True</td> <td style="text-align: center;">False</td> <td style="text-align: center;">Maybe</td> </tr> <tr> <td>If Triangle A is isosceles, Triangle B has to be isosceles.</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Triangles A and B have different size angles</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Triangle A has a larger area than Triangle B</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>		True	False	Maybe	If Triangle A is isosceles, Triangle B has to be isosceles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Triangles A and B have different size angles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Triangle A has a larger area than Triangle B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																										
	True	False	Maybe																																									
If Triangle A is isosceles, Triangle B has to be isosceles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																									
Triangles A and B have different size angles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																									
Triangle A has a larger area than Triangle B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: yellow;">Sort it...</th> <th style="background-color: yellow;">Nail it...</th> <th style="background-color: yellow;">Master it...</th> </tr> </thead> <tbody> <tr> <td>1) $a^2 \times a^2$</td> <td>1) $3^3 \times 3^6 = 3^{\blacksquare}$</td> <td>1) $(12^8 \div 12^4)^3$</td> </tr> <tr> <td>2) $c^3 \times c^{10}$</td> <td>1) $c^{\blacksquare} \times c^{10} = c^{12}$</td> <td>2) $(q^3)^{\blacksquare} \div q^2 = q^{15}$</td> </tr> <tr> <td>3) $f^8 \div f^2$</td> <td>2) $f^{\blacksquare} \div f^2 = f^6$</td> <td>3) $(p^2)^{\blacksquare} + (p^9)^4 = p^6$</td> </tr> <tr> <td>4) $y^{16} \div y^3$</td> <td>3) $y^{\blacksquare} \div y^3 = y^{27}$</td> <td>4) $\frac{3^4 \times 3^5}{3^6} \dots 5) \frac{8^5 \times 8^4}{8^2 \times 8^3}$</td> </tr> <tr> <td>5) $(x^4)^3$</td> <td>4) $(x^4)^{\blacksquare} = x^{20}$</td> <td>6) $(q^5)^{\blacksquare} \div q^3 = q^{12}$</td> </tr> <tr> <td>6) $(r^3)^6$</td> <td>1) $(r^7)^{\blacksquare} = r^{49}$</td> <td>$q^5 \times q^{10}$</td> </tr> <tr> <td>7) $(x^3)^4 \times (x^2)^6$</td> <td>2) $3^2 \times 3^5 \div 3^4$</td> <td>7) $(p^2)^2 \times p^3 = p^{13}$</td> </tr> <tr> <td>8) $(y^7)^3 \times (y^6)^2$</td> <td>8) $(12^8 \div 12^4)^3$</td> <td>$(p^{12})^2$</td> </tr> <tr> <td>9) $(r^3)^6 \div (r^2)^3$</td> <td>9) $(q^7)^{\blacksquare} \div q^2 = q^{15}$</td> <td>8) $(t^6 \div t^3)^4$</td> </tr> <tr> <td>10) $(p^3)^{12} \div (p^4)^4$</td> <td>10) $(p^7)^{\blacksquare} \div (p^9)^4 = p^0$</td> <td>$t^9 \div t^4$</td> </tr> <tr> <td></td> <td></td> <td>9) $(t^{\blacksquare} \div t^3)^2$</td> </tr> <tr> <td></td> <td></td> <td>$t^9 \div t^5 = t^8$</td> </tr> <tr> <td></td> <td></td> <td>Find the value of \blacksquare</td> </tr> </tbody> </table>	Sort it...	Nail it...	Master it...	1) $a^2 \times a^2$	1) $3^3 \times 3^6 = 3^{\blacksquare}$	1) $(12^8 \div 12^4)^3$	2) $c^3 \times c^{10}$	1) $c^{\blacksquare} \times c^{10} = c^{12}$	2) $(q^3)^{\blacksquare} \div q^2 = q^{15}$	3) $f^8 \div f^2$	2) $f^{\blacksquare} \div f^2 = f^6$	3) $(p^2)^{\blacksquare} + (p^9)^4 = p^6$	4) $y^{16} \div y^3$	3) $y^{\blacksquare} \div y^3 = y^{27}$	4) $\frac{3^4 \times 3^5}{3^6} \dots 5) \frac{8^5 \times 8^4}{8^2 \times 8^3}$	5) $(x^4)^3$	4) $(x^4)^{\blacksquare} = x^{20}$	6) $(q^5)^{\blacksquare} \div q^3 = q^{12}$	6) $(r^3)^6$	1) $(r^7)^{\blacksquare} = r^{49}$	$q^5 \times q^{10}$	7) $(x^3)^4 \times (x^2)^6$	2) $3^2 \times 3^5 \div 3^4$	7) $(p^2)^2 \times p^3 = p^{13}$	8) $(y^7)^3 \times (y^6)^2$	8) $(12^8 \div 12^4)^3$	$(p^{12})^2$	9) $(r^3)^6 \div (r^2)^3$	9) $(q^7)^{\blacksquare} \div q^2 = q^{15}$	8) $(t^6 \div t^3)^4$	10) $(p^3)^{12} \div (p^4)^4$	10) $(p^7)^{\blacksquare} \div (p^9)^4 = p^0$	$t^9 \div t^4$			9) $(t^{\blacksquare} \div t^3)^2$			$t^9 \div t^5 = t^8$			Find the value of \blacksquare	<p>Find the Lowest Common Multiple (LCM) of 60 and 75.</p> <p>Find the Highest Common Factor (HCF) of 48 and 56.</p>	 <p>Which two triangles are congruent to triangle A? and</p>
Sort it...	Nail it...	Master it...																																										
1) $a^2 \times a^2$	1) $3^3 \times 3^6 = 3^{\blacksquare}$	1) $(12^8 \div 12^4)^3$																																										
2) $c^3 \times c^{10}$	1) $c^{\blacksquare} \times c^{10} = c^{12}$	2) $(q^3)^{\blacksquare} \div q^2 = q^{15}$																																										
3) $f^8 \div f^2$	2) $f^{\blacksquare} \div f^2 = f^6$	3) $(p^2)^{\blacksquare} + (p^9)^4 = p^6$																																										
4) $y^{16} \div y^3$	3) $y^{\blacksquare} \div y^3 = y^{27}$	4) $\frac{3^4 \times 3^5}{3^6} \dots 5) \frac{8^5 \times 8^4}{8^2 \times 8^3}$																																										
5) $(x^4)^3$	4) $(x^4)^{\blacksquare} = x^{20}$	6) $(q^5)^{\blacksquare} \div q^3 = q^{12}$																																										
6) $(r^3)^6$	1) $(r^7)^{\blacksquare} = r^{49}$	$q^5 \times q^{10}$																																										
7) $(x^3)^4 \times (x^2)^6$	2) $3^2 \times 3^5 \div 3^4$	7) $(p^2)^2 \times p^3 = p^{13}$																																										
8) $(y^7)^3 \times (y^6)^2$	8) $(12^8 \div 12^4)^3$	$(p^{12})^2$																																										
9) $(r^3)^6 \div (r^2)^3$	9) $(q^7)^{\blacksquare} \div q^2 = q^{15}$	8) $(t^6 \div t^3)^4$																																										
10) $(p^3)^{12} \div (p^4)^4$	10) $(p^7)^{\blacksquare} \div (p^9)^4 = p^0$	$t^9 \div t^4$																																										
		9) $(t^{\blacksquare} \div t^3)^2$																																										
		$t^9 \div t^5 = t^8$																																										
		Find the value of \blacksquare																																										

Maths Subject/Topic: Angles

Key ideas: Interior and Exterior.

Calculate the value of the missing interior angle labelled x.



Subject/Topic: Data

Key ideas: Sampling Methods, Types of Data, Data Handling Cycle, 2 Way Tables

A call centre has 800 workers.
The building has 20 floors.
Each floor has 40 workers.

Describe a method that could be used to obtain a random sample of 120 workers from the call centre.

.....

 (1)

2) Saru wishes to learn about people's spending habits on food. He stands at the end of his road and asks 100 people the following question.



Write down two criticisms of his questions and explain why his survey might be biased.

1) Find the interior angle sum of the polygon shown below

[1]



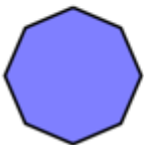
1. Height in cm
2. Nationality
3. Number of CDs sold by an artist
4. How many people live in your household
5. Time taken to run 100m
6. Favourite colour
7. Distance from home to school
8. Number of chocolates in a box
9. How much you agree with a statement
(1 = agree, 2 = neutral, 3 = disagree)

10. Daily temperature
11. Capacity of a water tank
12. Number of pages in a book
13. The length of your foot
14. Shoe size
15. Postcode

What type of data are each of these data sets? Qualitative, Quantitative Discrete or Quantitative Continuous?

2) Find one interior angle of a regular polygon with 7 sides, giving your answer to 3 significant figures where necessary [1]

3) Find the exterior angle sum of the polygon shown below [1]



	Still	Sparkling	Both	Total
Male	45			72
Female		35	17	
Total			25	143

a) Complete the two-way table.

