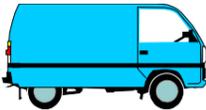
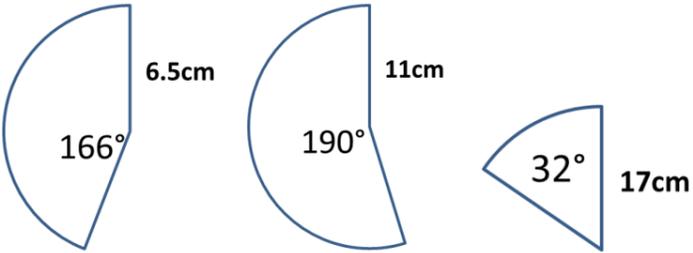
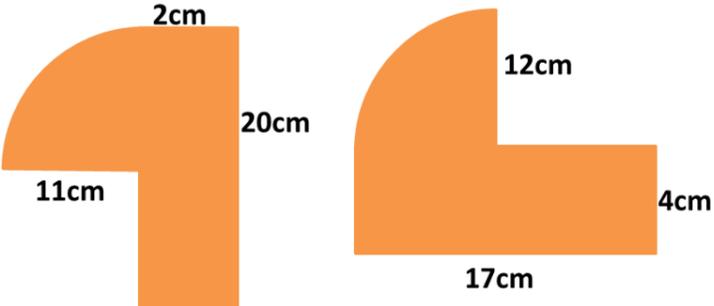


Percentage	I can ...	Prove it!
	<p>H17.2 I can find the equation of a tangent to a circle at a given point</p>	<p>The circle has equation $x^2 + y^2 = 10$ The green line is tangent to the circle and goes through (3, 1). Find its equation:</p>
	<p>H17.1 I can use and apply the equation of a circle with centre (0,0)</p>	<p>1) Find the equations of each of the circles below:</p> <p>2) Write down the coordinates of the centre point and radius of each of these circles:</p> <p>a) $(x-5)^2 + (y-7)^2=16$ b) $(x-3)^2 + (y-8)^2=36$ c) $(x+2)^2 + (y-5)^2=100$ d) $(x+2)^2 + (y+5)^2=49$</p>
	<p>C18.6 I can prove alternate segment theory</p>	<p>Find the missing angles below, giving reasons for each answer:</p>
	<p>H18.1 I can solve problems involving variations with powers</p>	<p>y is directly proportional to the cube of x. y is inversely proportional to z. When $y = 2$, $x = 2$ and $z = 16$ Find the value of z when $x = 4$ Show your working.</p>

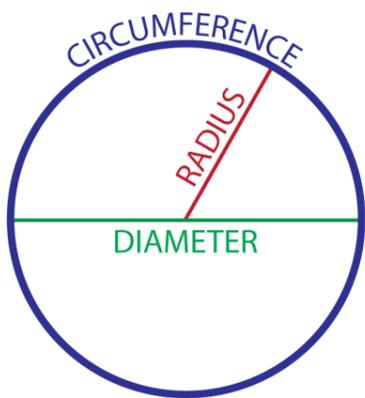


Percentage	I can ...	Prove it!
	<p>C18.5 I can use radii, tangents and chords to find angles in a circle</p>	<p>Show that triangle OAB is congruent to triangle OCB.</p>
	<p>C18.4 I can prove "opposite angles of a cyclic quadrilateral sum to 180°"</p>	<p>Use the circle above to prove that $x + y = 180^\circ$. You must show each step of your reasoning.</p>
	<p>C18.3 I can prove "The angle subtended by an arc at the centre of a circle is twice that at the circumference"</p>	<p>Use algebra to prove that angle COB is twice that of angle CAB</p>
	<p>C20.1 I can form logical arguments in both algebra and geometry</p>	<p>Find the size of angle DAE in the diagram below.</p> <p>Give reasons for your answer.</p> <p>Prove the following results:</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">The sum of 4 consecutive number is always even</div> <div style="border: 1px solid black; padding: 5px;">The product of two even numbers is even</div>



Percentage	I can ...	Prove it!
	<p>C19.2 Solve formal problems involving inverse variation where $y \propto \frac{1}{x}$</p>	<p>For each example below, write an equation to connect the variables and use the given information to find the constant of proportionality in each case.</p> <p>a) If r varies inversely with the square root of f and when $r = 32$, $f = 16$. Find f when $r = 32$.</p> <p>b) The cost C of hiring a transit van is inversely proportional to the number of people N, hiring it. If Robert hires the van himself, the cost will be £120. Find:</p> <p>(i) The cost per person if a party of 4 people hire the van.</p> <p>(ii) The number of people hiring the van if the cost per person is £7.50.</p> 
	<p>C19.1 I can solve formal problems involving direct variation where $y \propto x$</p>	<p>For each example below, write an equation to connect the variables and use the given information to find the constant of proportionality in each case.</p> <p>a) y is directly proportional to x When $x=3$ then $y=12$ What is x when $y=8$?</p> <p>b) a is directly proportional to the square of b When $b=3$ then $a=27$ When a is 12, what is b?</p> <p>c) If g varies directly with the square of h and when $g = 100$ and $h = 5$. Find the value h when $g = 64$.</p>
 	<p>C18.1 I can calculate sector area</p> <p>C18.2 I can calculate arc length</p>	<p>1. Calculate the area and perimeter of each of these sectors:</p>  <p>2. Calculate the area and perimeter of each of these shapes:</p> 

Percentage	I can ...	Prove it!
<p>34%</p>	<p>I can find area and circumference of circles</p>	<p>Calculate the area and circumference of the circles below:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> </div> <p>Find the area and circumference of the semi-circles below:</p> <div style="text-align: center;"> <p>8cm</p> </div>
<p>32%</p>	<p>I can label parts of a circle</p>	<p>Match up the mathematical terms to the parts of the circle below:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="display: flex; flex-direction: column; gap: 10px;"> <div style="border: 1px solid black; border-radius: 5px; padding: 2px;">major segment</div> <div style="border: 1px solid black; border-radius: 5px; padding: 2px;">circumference</div> <div style="border: 1px solid black; border-radius: 5px; padding: 2px;">arc</div> <div style="border: 1px solid black; border-radius: 5px; padding: 2px;">minor segment</div> </div> <div style="display: flex; flex-direction: column; gap: 10px;"> <div style="border: 1px solid black; border-radius: 5px; padding: 2px;">sector</div> <div style="border: 1px solid black; border-radius: 5px; padding: 2px;">radius</div> <div style="border: 1px solid black; border-radius: 5px; padding: 2px;">diameter</div> <div style="border: 1px solid black; border-radius: 5px; padding: 2px;">chord</div> </div> </div>



Key Words:

- Tangent
- Chord
- Sector
- Perpendicular
- Gradient
- Radius
- Circumference
- Proof
- Arc
- Subtended
- Proportion
- Variation
- Constant

Find the area of the shaded section:

