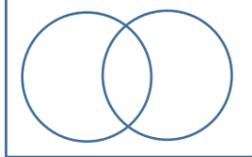
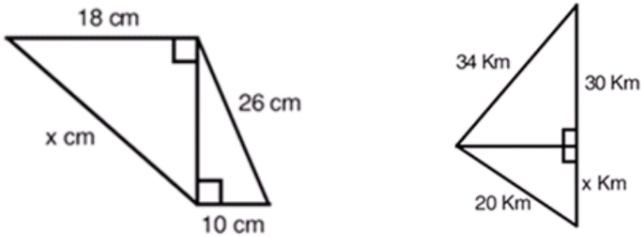
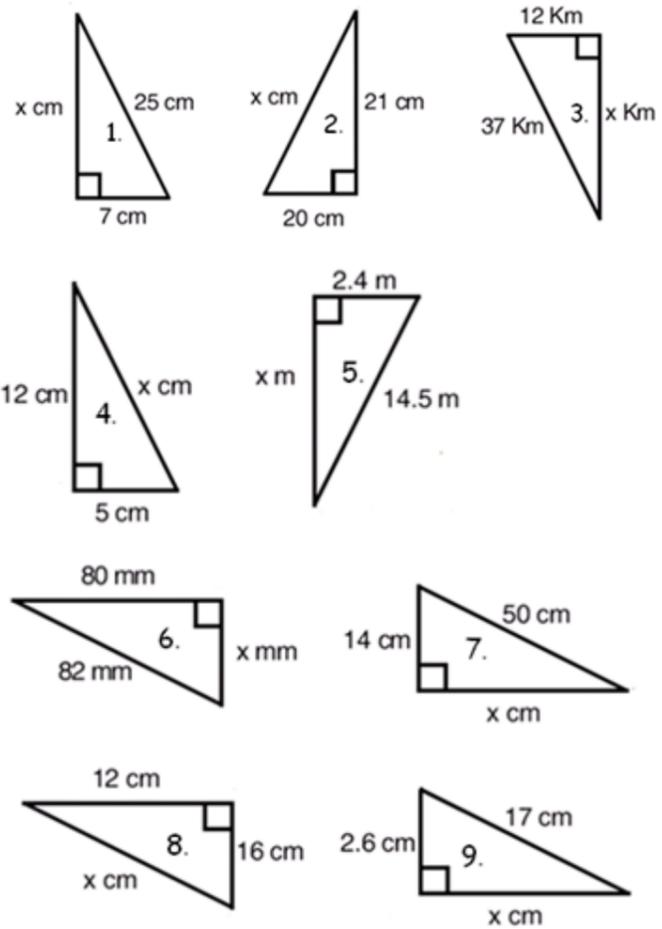
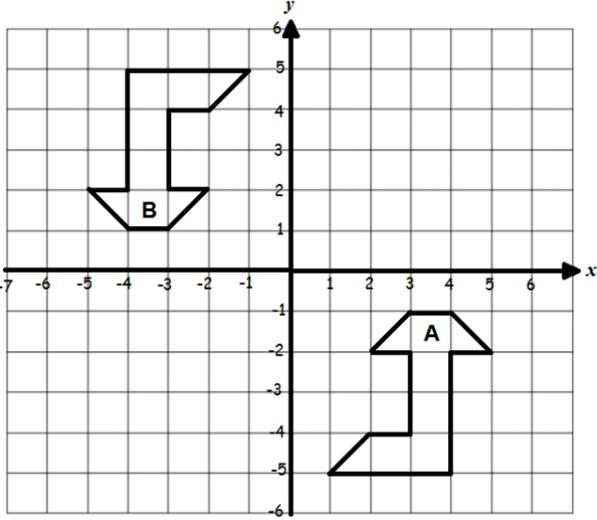
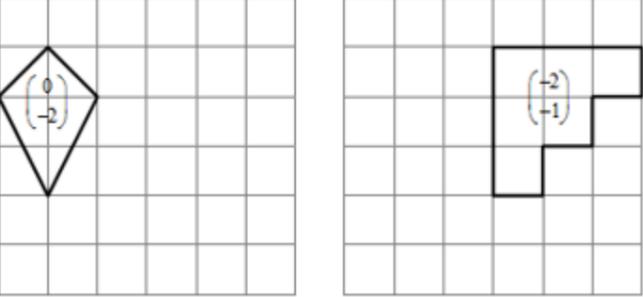
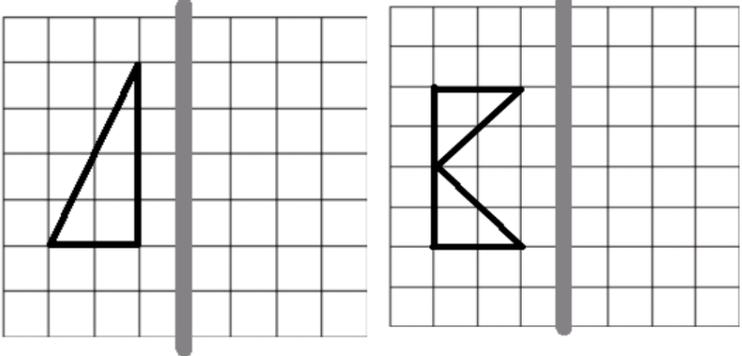
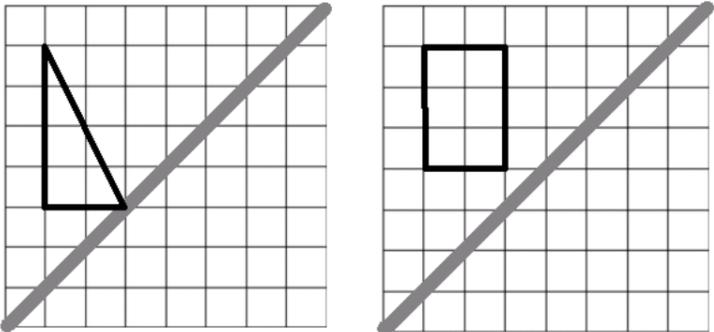


Percentage	I can ...	Prove it!
	Solve problems with trigonometry and Pythagoras in 3D	Calculate angle BHF 
	Solve problems using trigonometry	Two people, A and B, are on opposite sides of a tower that is 24m high and 12m wide. The angle of elevation from A to the top of the tower, F, is $32^\circ$ and the angle of elevation from B to the top of the tower, G, is $24^\circ$ . Find: i. The distance AF ii. The distance BG iii. The distance AB 
	Use trigonometry to find missing sides and angles in triangles	Find the missing angles in these triangles: 
	Solve problems with Pythagoras in 3D	Ms Dlova would like to send a magic wand to T in a box, what is the longest length of wand that Pumi can send in each of the boxes below: Hint: the rod can stretch from the top corner to the bottom corner 
	15.4 I can solve simple problems involving the $90^\circ$ , $60^\circ$ , $30^\circ$ triangle	A zip line hangs from the top of tall tree at an angle of $60^\circ$ and reaches all the way to the ground. The height of the tree is 11.5m. How long is the zip line? 
	15.3 I can find missing sides in a triangle using cosine, sine and tan ratios	Use your knowledge of ratios to find the length of the missing sides in these triangles: 



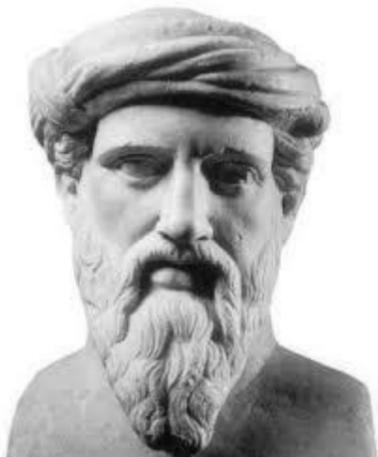
Percentage	I can ...	Prove it!
	<p>17.3 I can use Venn Diagrams to solve probability problems</p>	<p>Jack has a pack of cards numbered 1-20. Jack would like to know the probability of choosing a card that is both an even number and square number. Draw a Venn diagram Jack could use to help him solve this problem.</p> 
	<p>15.2 I can solve problems with right angled triangles using Pythagoras</p>	<p>Find the missing length <math>x</math> in the diagrams below, you may need to find other lengths first!</p>  <ol style="list-style-type: none"> <li>A ship leaves port and sails 12.9 km due east and then 4.6 km due south. It gets into difficulty. What is the shortest distance back to port?</li> <li>The diagonal of a rectangle is 18cm long and one of its sides is 6cm long. Find the length of the other side of the rectangle.</li> </ol>
	<p>15.1 I can use Pythagoras' theorem to find missing sides in right angled triangles</p>	<p>Find the missing length <math>x</math> in each triangle, give your answer to 2d.p.</p> 



Percentage	I can ...	Prove it!
	<p>16.5 I can describe single transformations</p>	 <p>Describe fully the single transformation that takes shape A to shape B</p>
	<p>16.1 I can translate a shape by a vector 17.2 I can create sample space diagrams</p>	<p>1. Translate each shape by the vector described:</p>  <p>2. Mr Holmes has 3 different coloured ties: red, yellow and green. He has two different coloured shirts white and blue. For work, Mr Holmes must wear one shirt and one tie. Draw a sample space diagram to show all of the combinations Mr Holmes can create.</p>
	<p>16.4 I can reflect a shape in a line</p>	<p>Reflect the image in the mirror line:</p>  <p>Reflect these images in the diagonal mirror line:</p> 



Percentage	I can ...	Prove it!												
	<b>16.3 I can describe rotations fully</b>	<p>Each of the following white shapes has been rotated to give the shaded shape. Describe fully the rotation that has happened, including marking the centre of rotation.</p> <p>a). </p> <p>b). </p> <p>c). </p>												
	<b>16.2 I can rotate a shape around a centre</b>  <b>17.1 I can apply probability to calculate an expected outcome</b>	<p>1- Rotate the object 180° about the marked centre of rotation</p> <p>2. Simon has a bag containing blue, green, red, yellow and white marbles. The table below shows the probability of each colour being chosen at random.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Colour</th> <th>Blue</th> <th>Green</th> <th>Red</th> <th>Yellow</th> <th>White</th> </tr> </thead> <tbody> <tr> <td>Probability</td> <td>0.3</td> <td>0.2</td> <td>0.15</td> <td></td> <td>0.1</td> </tr> </tbody> </table> <p>a. What is the probability of choosing a yellow?            b. Which colour is the most likely to be chosen?            c. Calculate the probability that a marble chosen at random is blue or white?</p>	Colour	Blue	Green	Red	Yellow	White	Probability	0.3	0.2	0.15		0.1
Colour	Blue	Green	Red	Yellow	White									
Probability	0.3	0.2	0.15		0.1									



**Key Words:**

Hypotenuse  
 Opposite  
 Adjacent  
 Trigonometry  
 Pythagoras  
 Vector  
 Sine  
 Cosine  
 Tan  
 Clockwise  
 Anticlockwise  
 Translate  
 Square root

