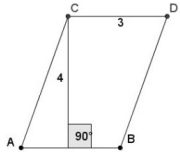
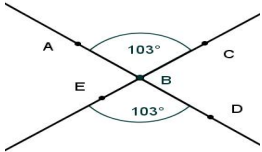
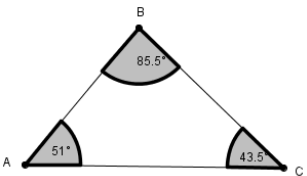
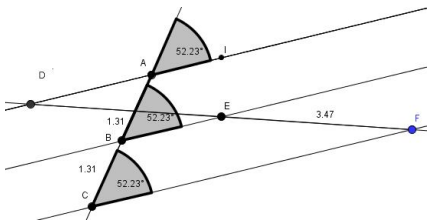
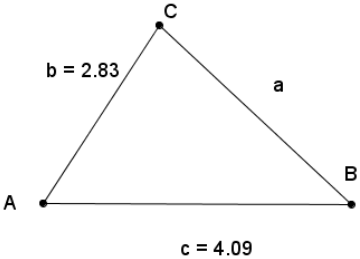
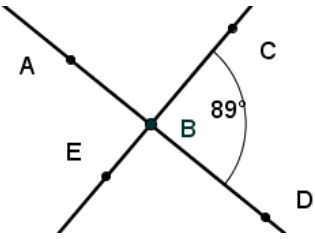
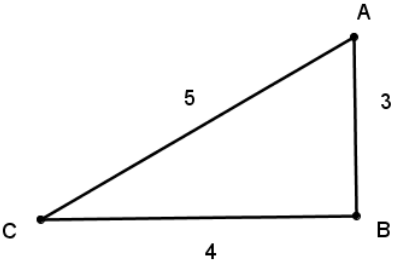
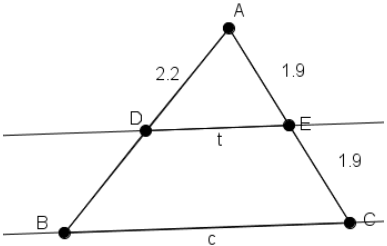
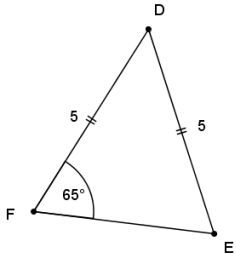
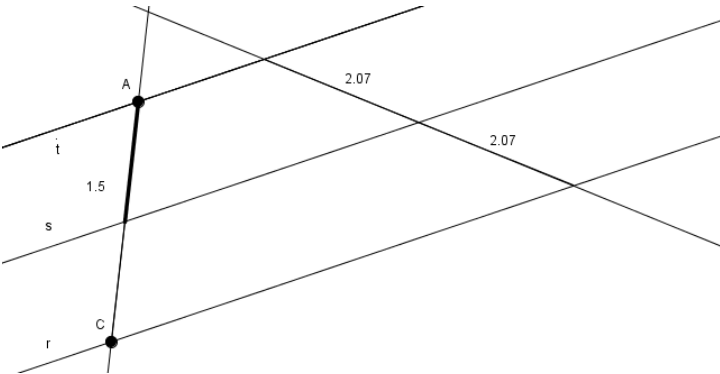


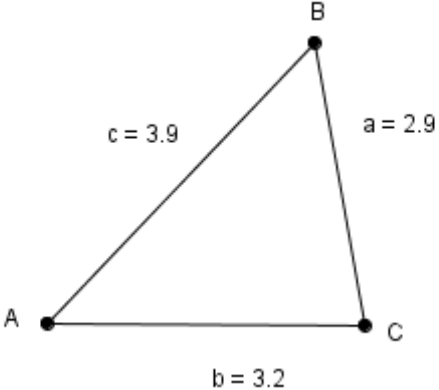
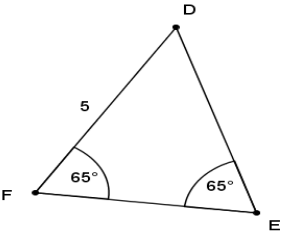
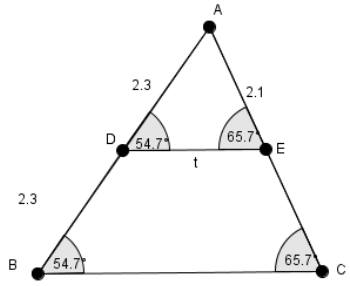
## Putting theorems into your own words Leaving Certificate Higher level

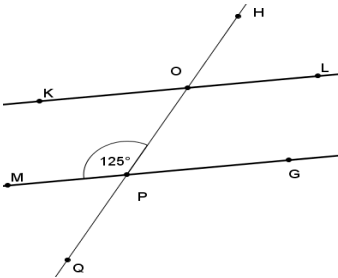
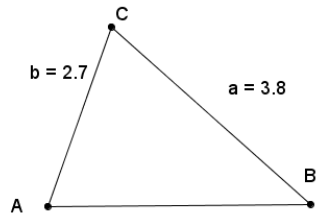
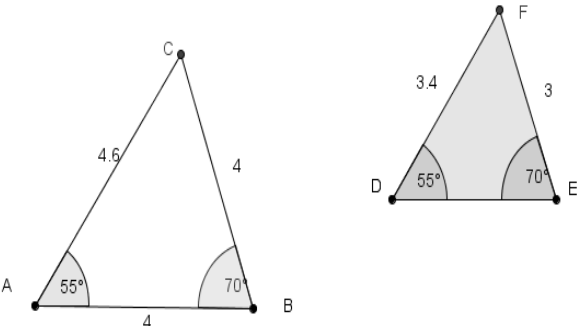
(Note these are not examination style questions, but an aid to enable students to become familiar with the theorems.)

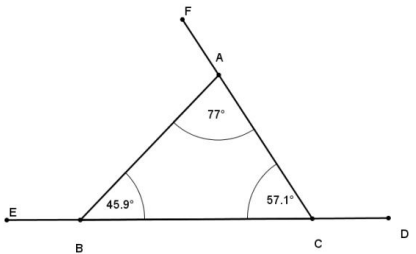
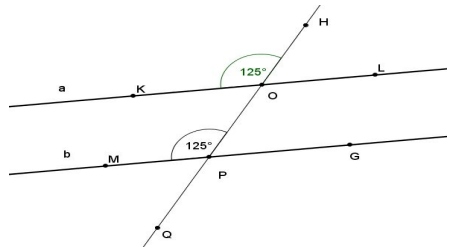
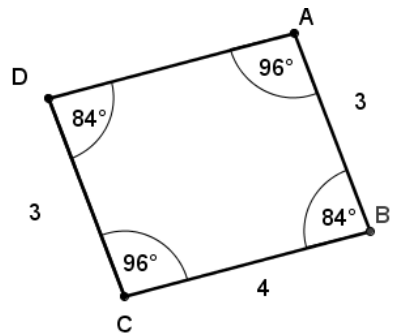
	Question	Write the theorem you used to solve this problem in your own words. Note it is not sufficient to give the number of the theorem.
	Find the area of the parallelogram ABDC. Answer:	
	Find the value of the angle DBC. Answer:	
	Which of the sides AB or BC will have greater length? Answer:	
	If we know the length of the line segment EF is 3.47, what will be the length of the segment DE? Answer:	

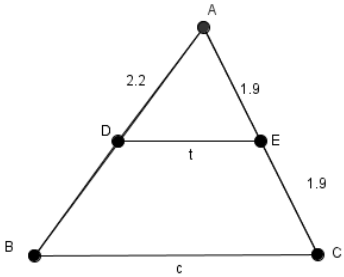
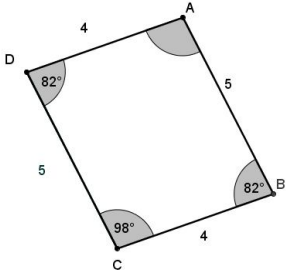
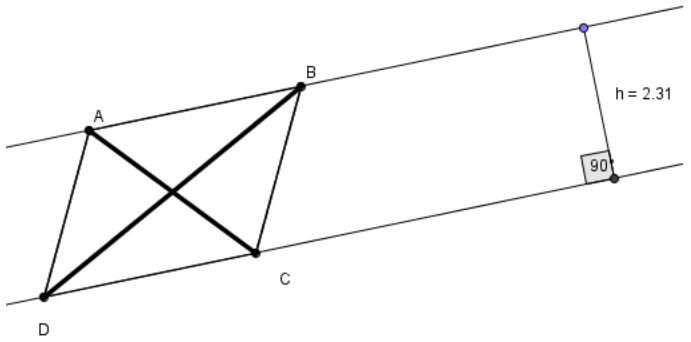
	Question	Write the theorem you used to solve this problem in your own words. Note it is not sufficient to give the number of the theorem.
	<p>What is the greatest possible value for the length of the side a?          Answer:</p>	
	<p>Find the value of the angle ABC.          Answer:</p>	
	<p>Find the value of the angle ABC.          Answer:</p>	

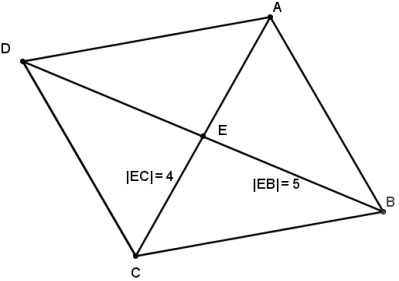
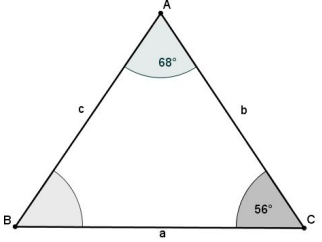
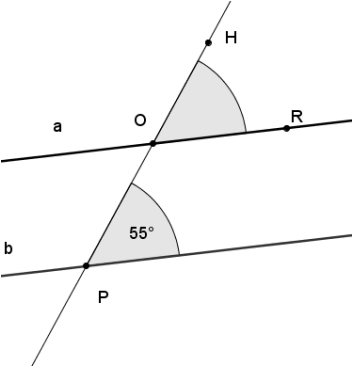
	Question	Write the theorem you used to solve this problem in your own words. Note it is not sufficient to give the number of the theorem.
	<p>If lines t and c are parallel, what will be the length of the line segment DB?          Answer:</p>	
	<p>Find the measure of the angle FDE.          Answer:</p>	
	<p>Given that the lines t, s and r are parallel, what will be the length of AC?          Answer:</p>	

	Question	Write the theorem you used to solve this problem in your own words. Note it is not sufficient to give the number of the theorem.
	<p>Will <math> \angle ABC </math> be greater than or less than <math> \angle ACB </math>?</p> <p>Answer:</p>	
	<p>Find the length of DE.</p> <p>Answer:</p>	
	<p>What is the length of the line segment EC?</p> <p>Answer:</p>	

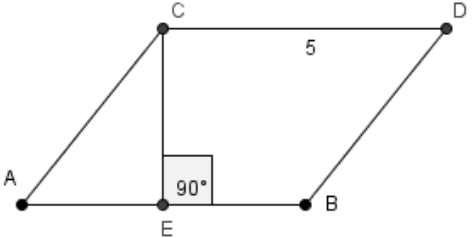
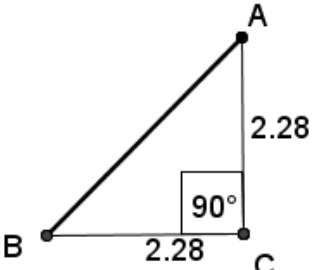
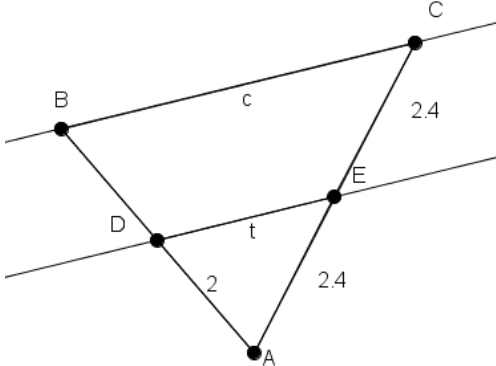
	Question	Write the theorem you used to solve this problem in your own words. Note it is not sufficient to give the number of the theorem.
	<p>Find the measure of the angle LOH.          Answer:</p>	
	<p>In the triangle shown could the length of side c be 8? [The diagram is not drawn to scale]          Answer:</p>	
	<p>Find the length of the line segment DE.          Answer:</p>	

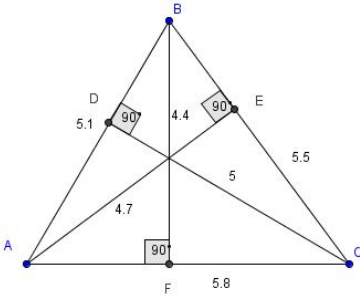
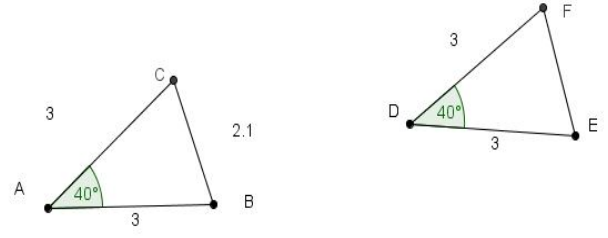
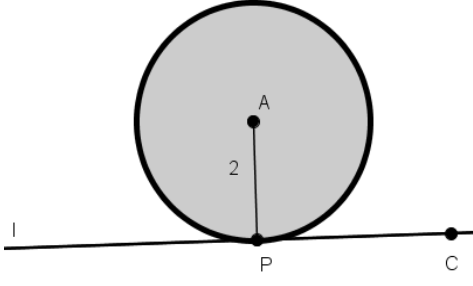
	Question	Write the theorem you used to solve this problem in your own words. Note it is not sufficient to give the number of the theorem.
	<p>Find the measure of the angles <math>EBA</math>, <math>BAF</math> and <math>ACD</math>.            Answer:</p>	
	<p>Determine if the lines <math>a</math> and <math>b</math> are parallel.            Answer:</p>	
	<p>Find the length of the line segment <math>DA</math>.            Answer:</p>	

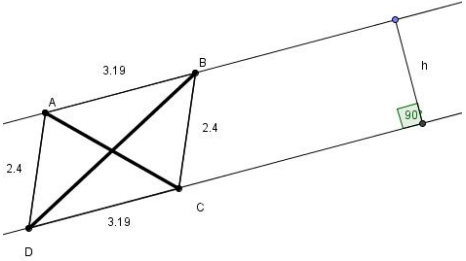
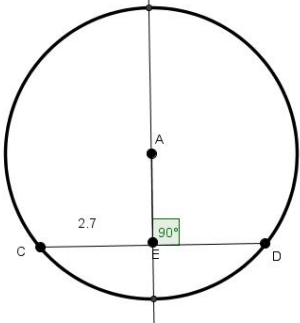
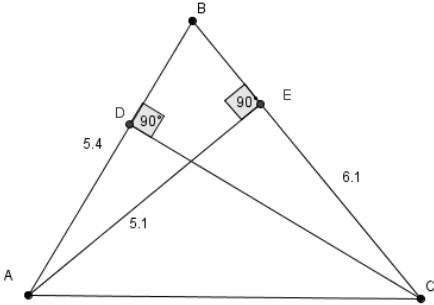
	Question	Write the theorem you used to solve this problem in your own words. Note it is not sufficient to give the number of the theorem.
	<p>Find the length of the line segment DB.          Answer:</p>	
	<p>Given ABCD is a parallelogram find the angle DAB.          Answer:</p>	
	<p>Given that the area of the triangle ABC is 2.8421, find the area of the parallelogram ABCD.          Answer:</p>	

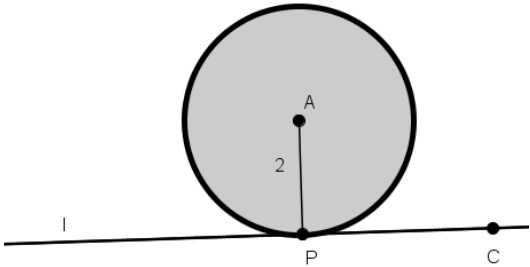
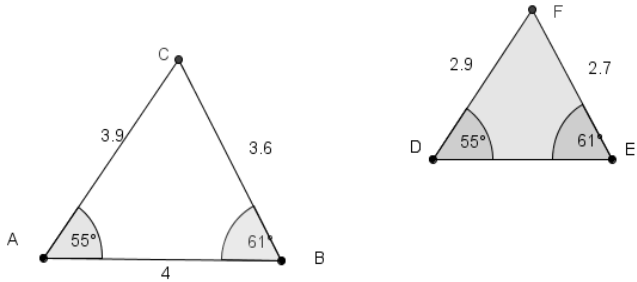
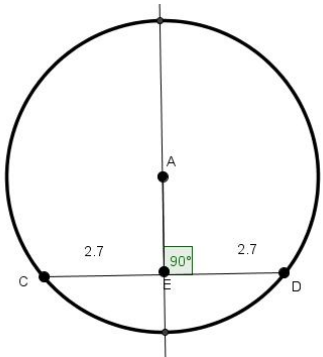
	Question	Write the theorem you used to solve this problem in your own words. Note it is not sufficient to give the number of the theorem.
 <p>A diagram of a parallelogram ABCD. The diagonals AC and BD intersect at point E. The length of segment EC is labeled as 4, and the length of segment EB is labeled as 5.</p>	<p>Given ABCD is a parallelogram, find the length of AE and the length of DE.          Answer:</p>	
 <p>A diagram of a triangle ABC. The interior angles at vertices B and C are shaded. The angle at vertex A is labeled as 68°. The angle at vertex C is labeled as 56°. The sides are labeled: side BC is 'a', side AC is 'b', and side AB is 'c'.</p>	<p>Find the measure of the angle ABC.          Answer:</p>	
 <p>A diagram showing two parallel lines, labeled 'a' and 'b', intersected by a transversal line. At the intersection with line 'a', the angle HOR is shaded. At the intersection with line 'b', the angle HOP is labeled as 55°.</p>	<p>Given the lines a and b are parallel, find the measure of the angle HOR.          Answer:</p>	

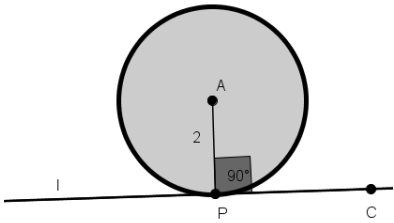
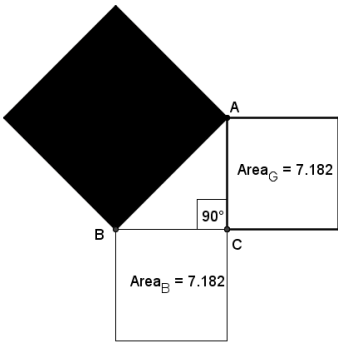
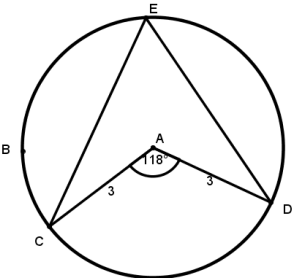


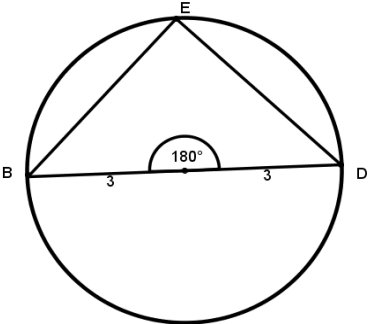
	Question	Write the theorem you used to solve this problem in your own words. Note it is not sufficient to give the number of the theorem.
	<p>Given the area of the parallelogram ABDC is <math>20 \text{ cm}^2</math>, find the perpendicular height of the parallelogram.          Answer:</p>	
	<p>Find the length of the line segment AB.          Answer:</p>	
	<p>Given that the lines t and c are parallel, find the length of the segment BD. Answer:</p>	

	Question	Write the theorem you used to solve this problem in your own words. Note it is not sufficient to give the number of the theorem.
	<p>Using the information supplied in the diagram, state 3 ways in which the area of the triangle can be calculated.</p> <p>Answer:</p>	
	<p>Find the length of the line segment FE.</p> <p>Answer:</p>	
	<p>Given that the circle has centre A and that the line l is a tangent to the circle at the point P, find the angle APC.</p> <p>Answer:</p>	

	Question	Write the theorem you used to solve this problem in your own words. Note it is not sufficient to give the number of the theorem.
	<p>If the area of the parallelogram ABCD is 6.4 find the perpendicular height (h) of the triangle DCB.          Answer:</p>	
	<p>Given that A is the centre of the circle, Find the length of ED.          Answer:</p>	
	<p>Find the length of DC.          Answer:</p>	

	Question	Write the theorem you used to solve this problem in your own words. Note it is not sufficient to give the number of the theorem.
	<p>If P is the point of contact between the circle (having centre A) and the line l, what is the size of the angle CPA?          Answer:</p>	
	<p>Find the length of the line segment DE.          Answer:</p>	
	<p>Name the centre of this circle.          Answer:</p>	

	Question	Write the theorem you used to solve this problem in your own words. Note it is not sufficient to give the number of the theorem.
	<p>Given the point P, on the circle having centre A, is the line l a tangent to the circle in the diagram opposite?          Answer:</p>	
	<p>Given the areas of the squares B and G are <math>7.128 \text{ cm}^2</math>. Find the area of the shaded square.          Answer:</p>	
	<p>Find the angle CED.          Answer:</p>	

	Question	Write the theorem you used to solve this problem in your own words. Note it is not sufficient to give the number of the theorem.
	<p>Find the angle BED.            Answer:</p>	