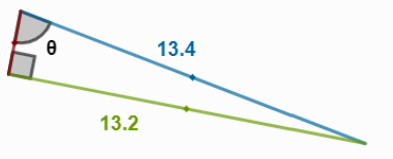
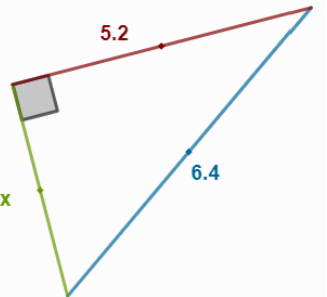
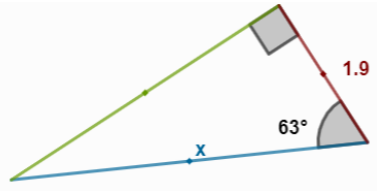


# 11 Trigonometry Unit Review

1. Right angled triangles. These diagrams are drawn to scale. Make sure your answer makes sense with the diagram.

<p>Calculate the size of the angle marked <math>\theta</math></p> 	<p>Calculate the side marked <math>x</math></p> 	<p>Calculate the length of the side marked <math>x</math></p> 
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2. Evaluate the exact value of the following trigonometric values. Use trig-diagrams, not a calculator.

$\sin 30^\circ$	$\cos 45^\circ$	$\tan 60^\circ$
$\cos 210^\circ$	$\tan 300^\circ$	$\cos(-30^\circ)$

3. Write down two trigonometric values that have the following values

1	0	-1
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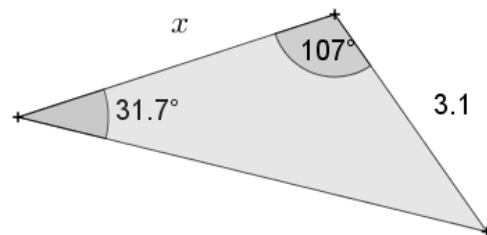
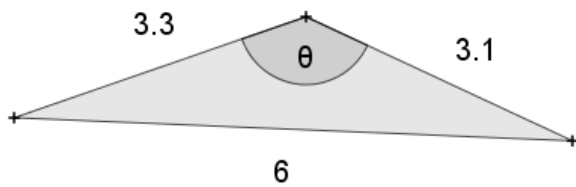
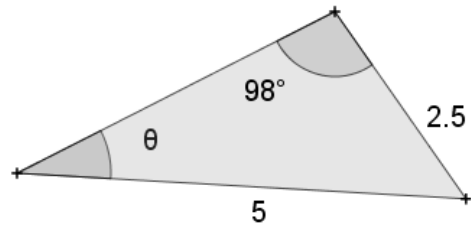
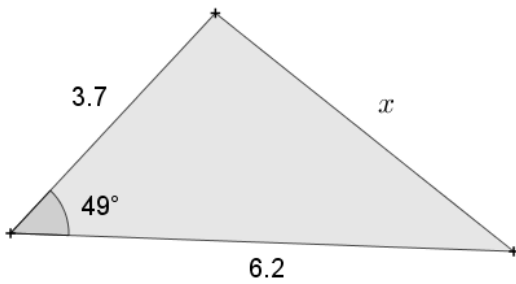
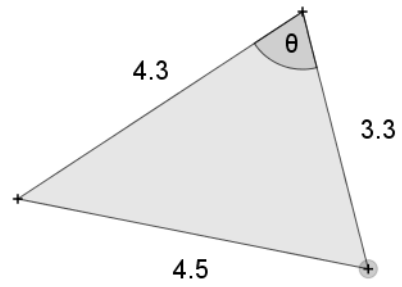
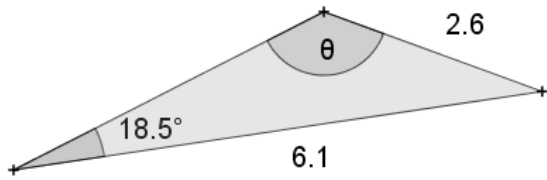
4 Let  $0 \leq \theta \leq 360$ . Solve:

$\tan \theta = 0.4$	$\cos \theta = -0.3$	$\sin \theta = 0.7$
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5 Solve each equation giving all values of  $\theta$  in the domain specified:

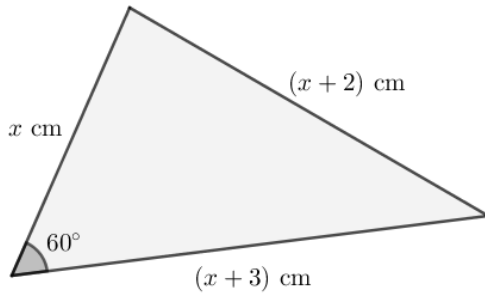
$\tan \theta = 0.1, \quad 0 \leq \theta \leq 720$	$\cos \theta = 0.3, \quad -180 \leq \theta \leq 180$	$\sin \theta = 0.7, \quad -360 \leq \theta \leq 360$
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6 Sine Rule, Cosine Rule Calculate the unknown marked with either  $x$  or  $\theta$  in each question. Make sure that your answer makes sense with the diagram.



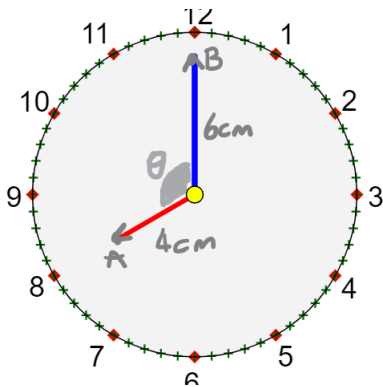
Problem Solving

7. Calculate the value  $x$ .



8. Show that, if  $a^2 = b^2 + c^2 - 2bc \cos A$ , then  $\cos A = \frac{b^2 + c^2 - a^2}{2bc}$

9. A clock shows the time 8 o'clock, as shown in the diagram below. The hour hand measures 4 cm. The minute hand measures 6 cm. What is the distance between the ends of the hands marked A and B?



10. This will be a 'wild-card' question.