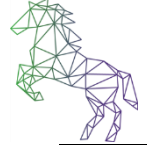


# Year 7 Maths Homework Menu: HT3

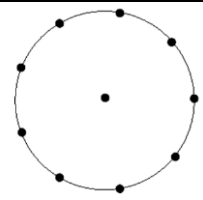


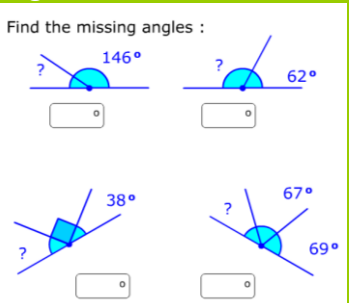


For each unit (column) you must choose one take away item for homework. The chilli rating suggests the difficulty of the task, or the challenge it might offer. Choose your homework from the menu below. The extra hot tasks will gain the most bonus points. You can earn an extra bonus point for putting in maximum effort. Your teacher will set your deadline and how you should submit your work.

			Drawing and measuring angles	Properties of triangles and quadrilaterals	Angle calculations
	More advanced thinking skills 	REASONING	Creating 6 Simon and Jim both measured an angle, Simon said the angle was $272^\circ$ and Jim said the angle was $88^\circ$ . Explain why they both could be correct.	Complete the puzzle, stick it into your exercise book <a href="http://nrich.maths.org/2927">http://nrich.maths.org/2927</a>	Find the size of each angle shown in the diagram, give reasons for each angle. 
		REASONING	Evaluating 5 John and Matt both measured an angle, John said the angle was $72^\circ$ and Matt said the angle was $108^\circ$ . The angle is acute, who is correct? Extension: Explain why they both thought they were correct?	Are these statements true or false? 1. All squares are rectangles 2. All kites are rhombuses 3. All rhombuses are rectangles	Can you find the size of angle marked x? Give reasons for your answer 
		PROBLEM SOLVING	Analysing 4 Play the game on the following link; write your score in your exercise book.	How many different quadrilaterals can be made by joining the nine dots on the circumference of this circle?	Complete this question in your exercise book:



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						<p>It may seem very peculiar to you but I've just drawn a triangle where all the angles are square.</p> <p>No, I don't mean right angles or <math>90^\circ</math> - that's impossible!</p> <p>What I do mean is that each angle, measured in degrees, is a square number.</p> <p>Can you tell me how many degrees each of the angles is?</p>
<p>Thinking skills</p> 	<p><b>PROBLEM SOLVING</b></p>	<p>Applying</p>	<p>3</p>	<p>Draw any four sided shape and measure all four angles. What is the sum of the angles? Is it always the same?</p>	<p>Extension: Compare your result to the task below.</p>	<p>In a full turn there are three angles, one is <math>92^\circ</math> and another is <math>237^\circ</math>, why must the third angle be <math>31^\circ</math>?</p>
	<p><b>FLUENCY</b></p>	<p>Understanding</p>	<p>2</p>	<p>Draw the following angles in your exercise book            (a) <math>32^\circ</math> (b) <math>75^\circ</math>            (c) <math>132^\circ</math> (d) <math>174^\circ</math></p>	<p>How many DIFFERENT quadrilaterals can be made by joining the dots?  <small>(There are eight evenly-spaced dots.)</small></p> 	<p>Find the size of the missing angles.</p> <p>Find the missing angles :</p> 
	<p><b>FLUENCY</b></p>	<p>Remembering</p>	<p>1</p>	<p>Mymaths tasks (1086,1103)</p>	<p>Mymaths tasks (1102,1130,1141)</p>	<p>Mymaths tasks (1082,1086)</p>