

# Year 8 Maths Homework Menu: HT2

For each unit 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.

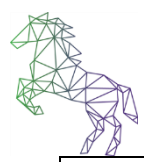
Your teacher will set your deadline and how you should submit your work.

**Factors and Multiples**

**Formulae**

**Equations**

	<p>More advanced thinking skills</p>	<p><b>REASONING</b></p>	<p><b>Creating</b></p>	<p><b>6</b></p>	<p>Cadbury's flakes come in packs of 4 and icecream cones come in packs of 6. Sam says she needs to buy 24 of each to not have any wastage. Is she right? Explain your answer.</p>	<p>Follow the link, complete the task and extension task <a href="http://nrich.maths.org/5608">http://nrich.maths.org/5608</a></p>	<p>Follow the link, complete the task and answer the questions <a href="http://nrich.maths.org/1170">http://nrich.maths.org/1170</a></p>
		<p><b>REASONING</b></p>	<p><b>Evaluating</b></p>	<p><b>5</b></p>	<p>Matt has 23 sweets. His mother tells him to share his sweets with his friends. Can he do this equally? What if he had 24 sweets? Explain your answers carefully.</p>	<p>The formula for the amount of soil needed S, in kg, by a farmer is <math>S = 4A</math>, where A is the area of a field. A farmer has a field with area <math>50 \text{ m}^2</math>. He has 180 kg of soil. Does he have enough soil? Explain your answer.</p>	<p>Mary says that the solution to <math>\frac{x}{2} + 3 = 5</math> is <math>x = 7</math> Explain what Mary has done wrong, and find the correct answer.</p>
		<p><b>PROBLEM SOLVING</b></p>	<p><b>Analysing</b></p>	<p><b>4</b></p>	<p>Mark buys pens in packs of 8 and pencils in packs of 10. What is the smallest number of each he can buy to have the same number of pens and pencils overall?</p>	<p>The area of a circle is <math>A = \pi r^2</math>. Find a) The area if <math>r = 5 \text{ cm}</math>. b) The radius if the area is <math>132.7 \text{ cm}^2</math>.</p>	<p>Michael is 4 times as old as Brandon and is also 27 years older than Brandon. How old is Michael?</p>
		<p><b>PROBLEM SOLVING</b></p>	<p><b>Applying</b></p>	<p><b>3</b></p>	<p>A carpenter has two lengths of wood; one is 180 cm long and the other is 270 cm long. He wants to cut them up to produce smaller</p>	<p>The formula to convert between temperatures in Farenheit, F, and Celsius, C, is <math>F = 1.8C + 32</math></p>	<p>A garden has a length of <math>2x + 7</math> and a width of <math>x + 5</math>. The perimeter of the garden is 48 m. Find x.</p>



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	Thinking skills				pieces of wood to build a shelving unit so they all need to be the same length, with no wood left over. What is the greatest length, in cm, that he can make the shelves?	a) Find the temperature in Farenheit when it is 46 °C b) Find the temperature in Celsius when it is 77 °F	
		FLUENCY	Understanding	2	Write 360 as a product of its prime factors	Complete MyMaths Tasks 1171, 1128, 1395, 1925, 1182, 1928,	Complete MyMaths Tasks 1182, 1928
		FLUENCY	Remembering	1	Complete MyMaths Tasks 1032 and 1044	Complete MyMaths Tasks 1159 and 1129	Complete MyMaths Tasks 1925, 1154