
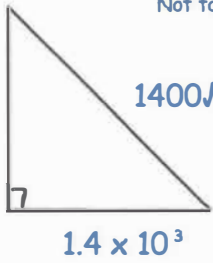
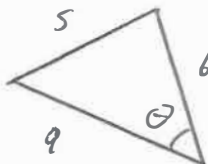


<p>17th October</p> <p>m is inversely proportional to x^2</p> <p>when $m = 3, x = 5$</p> <p>Find the value of m when $m = x$</p>	<p style="text-align: right;"> Corbettm0ths</p> $m = \frac{75}{x^2}$ $x = \frac{75}{m^2}$ $x^3 = 75$ $x = 4.21716..$
<p>Solve the simultaneous equations</p> <p>$x + y = 10$</p> <p>$y = 2x^2 + 4$</p>	<p>$y = 8.5$ or $y = 12$</p> <p>$(\frac{3}{2}, 8\frac{1}{2})$ or $(-2, 12)$</p> <p>$(1.5, 8.5)$</p>
<p>Not to scale</p> 	<p>Is the triangle shown a right angle triangle?</p> $(1.4 \times 10^3)^2 + (4.2 \times 10^3)^2 = 19600000$ $(1400\sqrt{10})^2 = 19600000$ <p style="text-align: center;"><u>Yes</u></p>
<p>The lengths of the sides of a triangle are in the ratio 5:6:9</p> <p>Calculate the size of the smallest angle.</p> 	$\cos \theta = \frac{9^2 + 6^2 - 5^2}{2 \times 9 \times 6}$ $\cos \theta = \frac{23}{27}$ $\theta = 31.59^\circ$
<p>The point M has coordinates $(1, \sqrt{2})$ and the point N has coordinates $(\sqrt{2}, 3)$.</p> <p>Find the gradient of MN in the form $a + b\sqrt{2}$</p>	$\frac{3\sqrt{2} + 3 - 2 - \sqrt{2}}{2 - 1}$ $2\sqrt{2} + 1$