

Question	Answer	Marks	AOs	Guidance
5	<p>Let <math>AB = c</math> and <math>BC = a</math></p> <p>Using perimeter <math>a + c + 13 = 32</math> giving <math>a + c = 19</math></p> <p>Using area <math>\frac{1}{2}ac \sin B = \frac{1}{2}ac \times \frac{4}{5} = 24</math> giving <math>ac = 60</math></p> <p>Solving simultaneously</p> $a(19 - a) = 60 \Rightarrow a^2 - 19a + 60 = 0$ <p>Giving <math>a = 4</math> or <math>15</math></p> <p>AB is the shortest side, so <math>AB = 4</math> cm and <math>BC = 15</math> cm</p>	<p>M1</p> <p>M1</p> <p>M1</p> <p>A1</p> <p>A1</p> <p>[5]</p>	<p>3.1a</p> <p>3.1a</p> <p>1.1</p> <p>1.1</p> <p>3.2a</p>	<p>Forming an equation – need not be simplified</p> <p>Forming another equation – need not be simplified</p> <p>Attempt to solve their non-linear simultaneous equations</p> <p>Correct roots of quadratic</p> <p>Must be the right way round</p>