Question			Answer	Marks	AO	Guidance
10			Cos A = $\frac{3.5^2+3.9^2-4.5^2}{2\times3.9\times3.5}$ **oe**	**M1**	**2.1**	Or Cos B = $\frac{4.5^2+3.9^2-3.5^2}{2\times3.9\times4.5}$ or Cos C = $\frac{3.5^2+4.5^2-3.9^2}{2\times4.5\times3.5}$ Correct use of cosine rule – might not see the 'Cos A' etc till next line, but must be a correct use so no 'sin' etc Can be in form $a^2 = b^2 + c^2 - 2bc\text{Cos}A$ e.g. $4.5^2 = 3.5^2 + 3.9^2 - 2 \times 3.5 \times 3.9 \times \text{Cos } A$ OR $3.5^2 = 4.5^2 + 3.9^2 - 2 \times 4.5 \times 3.9 \times \text{Cos } B$ OR $3.9^2 = 3.5^2 + 4.5^2 - 2 \times 3.5 \times 4.5 \times \text{Cos } C$
			cos A = 0.2641… correct to 2 or more sf **soi**	**A1**	**1.1**	cos B = 0.66125… or cos C = 0.5488889
			A = 74.686° correct to 2 or more sf **soi**	**A1**	**1.1**	B = 48.604° or C = 56.709°
			$\frac{1}{2} \times 3.5 \times 3.9 \times \sin 74.686$	**M1FT**	**3.1a**	or $\frac{1}{2} \times 4.5 \times 3.9 \times \sin' 48.604'$ or $\frac{1}{2} \times 3.5 \times 4.5 \times \sin' 56.709'$ Must be using their included angle for their two adjacent sides **<u>For the Final two marks:</u>** They could also find an altitude, h, using one of the angles e.g using angle at C '$h = 3.5$ their $\sin C = 2.9256$ ... ' then $\frac{1}{2}bh =$ $\frac{1}{2}(4.5)(2.9256..) = 6.58267..$
			awrt 6.58 or 6.6	**A1**	**3.2a**	