

## Question 7 – 2:

7(a)	39.6 or 39.57....	4	<b>M2</b> for $[\cos =] \frac{14^2 + 12^2 - 9^2}{2 \times 14 \times 12}$ or <b>M1</b> for $9^2 = 14^2 + 12^2 - 2 \times 14 \times 12 \times \cos ACD$ <b>A1</b> for 0.7708... or 0.771 or $\frac{37}{48}$ oe
7(b)	$\frac{14 \sin 25}{\sin 123}$	<b>M2</b>	<b>M1</b> for $\frac{\sin 123}{14} = \frac{\sin 25}{BC}$ oe
	7.054...	<b>A1</b>	
7(c)	3.74 or 3.735 to 3.739	3	<b>M2</b> for $7.05 \times \sin 32$ or <b>M1</b> for recognition that the line from $B$ is perpendicular to $AC$
7(d)	11.8 or 11.83 to 11.85	4	<b>M1</b> for $32 + \text{their}(a)$ soi <b>M2</b> for $12^2 + 7.05^2 - 2 \times 12 \times 7.05 \times \cos(\text{their}(a) + 32)$ or <b>M1</b> for $\cos(\text{their}(a) + 32) = \frac{12^2 + 7.05^2 - BD^2}{2 \times 12 \times 7.05}$
7(e)	309.6 or 309.57...	2	<b>FT</b> 270 + $\text{their}(a)$ <b>M1</b> for $270 + \text{their}(a)$ oe