Question	Working	Answer	Mark	Notes
18	$14^2 = 10^2 + 8^2 - 2 \times 10 \times 8 \times \cos A$ **or** $\cos A = \frac{10^2+8^2-14^2}{2\times 8\times 10}$ oe		3	M1 Correct substitution in cosine rule for **any** angle or for 44.4... or 34.047....(the other 2 angles to 1dp or better)
				M1 $\cos^{-1}\left(\frac{10^2+8^2-14^2}{2\times 10\times 8}\right)$ oe ie $\cos^{-1}$ of the correct angle **or** a fully correct method to find the largest angle eg $180-\cos^{-1}\left(\frac{196+100-64}{280}\right)-\cos^{-1}\left(\frac{196+64-100}{224}\right)$ oe
		101.5		A1 101.5 to 101.6
				Total 3 marks

19	$BE^2 = 10^2 + 24^2 + 8^2$ (= 100 + 576 + 64 = 740) ($BE = 2\sqrt{185}$ =27.202 …)	$BD^2 = 8^2 + 24^2$ (=64 + 576 = 640) ($BD = 8\sqrt{10}$ = 25.298….)		3	M1 Complete method to find *BE* or BE^2 or *BD* or BD^2
	$\sin DBE = \frac{10}{\sqrt{"740"}}$ (= 0.3676 …)	$\tan DBE = \frac{10}{\sqrt{"640"}}$ (= 0.3952…) **or** $\cos DBE = \frac{\sqrt{"640"}}{\sqrt{"740"}}$ (=0.9428…)			M1 Allow use of sine or cosine rule $\sin DBE = \frac{10\sin 90}{\sqrt{"740"}}$ **or** $\cos DBE = \frac{"640"+"740"-10^2}{2\times\sqrt{"640"}\times\sqrt{"740"}}$ (=0.9299…)
			21.6		A1 21.5 – 21.6
					Total 3 marks