

1	39.5	P1	<p>for a start to a process eg. for a correct trigonometric statement, eg $\sin 48 = \frac{7.3}{AC}$ or $\cos 42 = \frac{7.3}{AC}$ or $\frac{AC}{\sin 90} = \frac{7.3}{\sin 48}$ OR angle CAH unambiguously identified on a diagram</p> <p>P1 for a complete correct process to find AC, eg $(AC =) \frac{7.3}{\sin(48)}$ ($=9.8..$) or $(AC =) \frac{7.3}{\cos(42)}$ ($=9.8..$) or $(AC =) \sin 90 \times \frac{7.3}{\sin 48}$ ($=9.8..$)</p> <p>P1 for a correct statement using angle CAH, eg $\tan(CAH) = \frac{8.1}{9.8..}$ OR $\sqrt{8.1^2 + "9.8"'^2}$ ($=12.7..$) and $\frac{\sin CAH}{8.1} = \frac{\sin 90}{"12.7"$</p> <p>A1 for answer in the range 39.5 – 39.51</p>	<p>Must include correct values</p> <p>If an answer is given in the range but then incorrectly rounded award full marks.</p>
---	------	----	---	---

2	31.0	P1	<p>for $\tan 35 = \frac{BE}{15}$ or $BE = 10.5(0..)$ OR finding the length $DM = \frac{2}{5} \times 15 (= 6)$ or $MA = \frac{3}{5} \times 15 (= 9)$ or 6:9 OR showing the required angle on a diagram eg with an arc</p> <p>P1 for $MB = \sqrt{15^2 + "9"'^2}$ or $\sqrt{306}$ or 17.4(9...) OR $ME = \sqrt{"9"'^2 + "18.3(1...)"'^2}$ or $\sqrt{416. (3 ...)}$ or 20.4(0...)</p> <p>P1 for using appropriate trigonometry ratio to set up an equation in angle EMB eg $\tan \theta = "10.5(0..)" + "17.4(9...)"$ or $\cos \theta = "17.4(9...)" + "20.4(0...)"$ or $\sin \theta = "10.5(0...)" + "20.4(0...)"$</p> <p>A1 for answer in the range 30.9 to 31</p>	<p>$MB = \sqrt{9^2 + 15^2} = \sqrt{306}$ ($=17.4(9...)$ or 17.5) $BE = 15 \times \tan 35$ ($=10.5(0...)$) $AE = 15 \div \cos 35$ ($=18.3(1...)$) $ME = \sqrt{9^2 + 18.31...^2} = \sqrt{416. (3 ...)}$ ($=20.4(0...)$)</p> <p>Check diagram for working</p> <p>If an answer is shown in the range in working and then incorrectly rounded award full marks.</p>
---	------	----	--	--