19		$(AH =)\sqrt{6^2+5^2+9^2}$ $(=\sqrt{142})$ **or** $(FH = GE =)\ \sqrt{5^2+9^2}$ $(=\sqrt{106})$		4	M1 for working out *AH* or *FH* or *GE*
		E.g. $\sin AHF = \frac{6}{'\sqrt{142}'}$ **or** $\tan AHF = \frac{6}{'\sqrt{106}'}$ **or** $\cos AHF = \frac{'\sqrt{106}'}{'\sqrt{142}'}$ **or** $\sin FAH = \frac{'\sqrt{106}'}{'\sqrt{142}'}$ **or** $\cos FAH = \frac{6}{'\sqrt{142}'}$ **or** $\tan FAH = \frac{'\sqrt{106}'}{6}$			M1 for a correct method for finding angle *AHF* **or** finding angle *FAH* Allow $\cos AHF = \left(\frac{'\sqrt{142}'^2+'\sqrt{106}'^2-6^2}{2\times'\sqrt{142}'\times'\sqrt{106}'}\right)$ oe **or** $\sin AHF = \frac{\sin 90}{'\sqrt{142}'}\times 6$ oe
		E.g. $\sin^{-1}\left(\frac{6}{'\sqrt{142}'}\right)$ **or** $\tan^{-1}\left(\frac{6}{'\sqrt{106}'}\right)$ **or** $\cos^{-1}\left(\frac{'\sqrt{106}'}{'\sqrt{142}'}\right)$ **or** $90-\sin^{-1}\left(\frac{'\sqrt{106}'}{'\sqrt{142}'}\right)$ **or** $90-\cos^{-1}\left(\frac{6}{'\sqrt{142}'}\right)$ **or** $90-\tan^{-1}\left(\frac{'\sqrt{106}'}{6}\right)$			M1 for a complete method Allow $\cos^{-1}\left(\frac{'\sqrt{142}'^2+'\sqrt{106}'^2-6^2}{2\times'\sqrt{142}'\times'\sqrt{106}'}\right)$ oe **or** $\sin^{-1}\left(\frac{\sin 90}{'\sqrt{142}'}\times 6\right)$ oe
			30.2		A1 for 30.2 – 30.3
					Total 4 marks