

Question	Answer	Marks	Guidance
	For attempt at resolving horizontally or vertically	M1	Allow sin/cos mix. Allow sign error. Allow g missing. Correct number of terms.
	$R = 300g - 0.28X$ or $R = 300g - X \sin 16.3$	A1	$\alpha = 16.26\dots$
	$0.96X - F = 0$ or $0.96X - 0.5(300g - X \sin \alpha) = 0$ Or $X \cos 16.3 - F = 0$ or $X \cos 16.3 - 0.5(300g - X \sin \alpha) = 0$	A1	Or using <i>their</i> F
	Use of $F = 0.5R$	M1	Use to get an equation in X only. Allow sin/cos mix. Allow sign error. Allow g missing. Must be from 2 term R , which is a linear combination of $300(g)$ and a component of X
	$X = 1360$ [1363.63...]	A1	
		5	

