













Notes:		
a	M1	Any moments equation with correct terms, condone sign errors and sin/cos confusion
	A1	Correct equation
	B1	Correct equation
	DM1	Dependent on M1, for using their equations ( <u>they must have enough</u> ) and $F \leq \mu R$ to give an inequality in $\mu$ and $\theta$ only (allow M1 for use of $F = \mu R$ to give an equation in $\mu$ and $\theta$ only)
	A1*	Given answer correctly obtained with no wrong working seen (e.g. if they use $F = \mu R$ anywhere, A0)
b	M1	Any moments equation with correct terms, condone sign errors
	A1	Correct equation
	B1	Correct equation
	DM1	Dependent on M1, for using their equations ( <u>they must have enough</u> ) with trig substituted, to solve for $k$ , which must be numerical.
	A1	cao