

Question Number	Scheme	Marks
5(a)	$(\square), \quad R = 8\cos 50^\circ + 0.5g\cos 30^\circ$ $(\square), \quad F = 8\cos 40^\circ - 0.5g\sin 30^\circ$ $F = \mu R$ $\mu = 0.39 \text{ or } 0.392$	M1 A2 M1 A2 B1 DM1 A1 9
	Notes	
	First M1 for resolving perpendicular to the plane with usual rules and 8 must be used with 40° or 50° and $0.5(g)$ must be used with 30° or 60° First A1 and second A1 for a correct equation – 1 each error (A1A0 or A0A0) Second M1 for resolving parallel to the plane with usual rules and 8 must be used with 40° or 50° and $0.5(g)$ must be used with 30° or 60° Third A1 and fourth A1 for a correct equation – 1 each error (A1A0 or A0A0) B1 for $F = \mu R$ seen Third M1 dependent on both previous M marks for solving for μ Fifth A1 for 0.39 or 0.392 N.B. If they resolve in any other directions e.g. horizontally or vertically, apply similar rules to the above for the M mark in each case.	