

Question Number	Scheme	Marks
5(a)	$(\square), R = 8\cos 50^\circ + 0.5g\cos 30^\circ$ $(\square), F = 8\cos 40^\circ - 0.5g\sin 30^\circ$ $F = \mu R$ $\mu = 0.39 \text{ or } 0.392$	M1 A2 M1 A2 B1 <b>DM1 A1</b> <b>9</b>
	<b>Notes</b>	
	First M1 for resolving perpendicular to the plane with usual rules and 8 must be used with $40^\circ$ or $50^\circ$ and 0.5(g) must be used with $30^\circ$ or $60^\circ$ 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 $40^\circ$ or $50^\circ$ and 0.5(g) must be used with $30^\circ$ or $60^\circ$ 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 $\mu$ Fifth A1 for 0.39 or 0.392 <b>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.</b>	