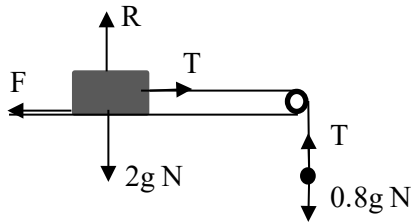| 11 | (a) | | **B1** | 1.1a | both weights correct. | Allow weight of box and weight of sphere, but not if both marked weight. |
			B1	1.1a	common tension in the rigtht directions	Allow T_1 and T_2 provided they are clearly shown equal to each other elsewhere.
			B1 [3]	1.1a	Friction and normal reaction and no extra forces	For F, allow $0.35R$, $0.35 \times 2g$ $0.7g$ or 6.86 N
11	(b)	$T - F = 2a$ $0.8g - T = 0.8a$	**B1** **B1** [2]	1.1a 1.1a	Allow any expression for F Allow distinct tensions if consistent with diagram	For F, allow $0.35R$, $0.35 \times 2g$ $0.7g$ or 6.86 N
11	(c)	Vertically for the block $R = 2g$ Friction $F = 0.35R = 0.7g$ Add equations $0.8g - F = 2.8a$ $0.8g - 0.7g = 2.8a$ $a = 0.35$ m s^{-2}	**M1** **A1** **M1** **A1** [4]	3.1b 2.1 2.1 2.1	Attempt to use μ to evaluate friction Correct value for F Eliminate T from their equations AG must follow from correct work	Some of this work may already have been seen in previous part
11	(d)	Use $s = 0.5$, $u = 0$, $a = 0.35$ $0.5 = \dfrac{1}{2} \times 0.35 \times t^2$ $t = 1.69$ s	**M1** **A1** [2]	1.1a 1.1	Using *suvat* equation(s) leading to a value for t Do not allow ± 1.69	