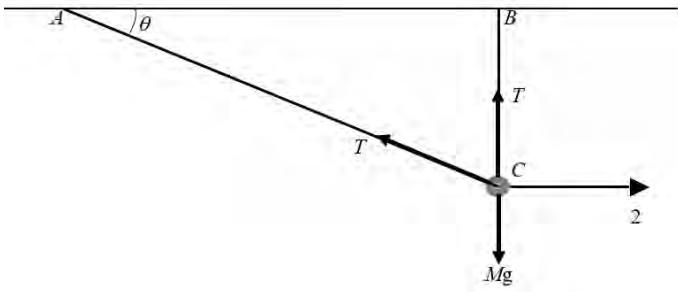


QUESTION NUMBER	SCHEME	MARKS
1		
(a)	Horiz: $2 = T \cos \theta$	M1 A1
	$T = 2.5$	A1
		(3)
(b)	Vert: $T + T \sin \theta = Mg$	M1 A1
	$M = 0.41$ or 0.408	A1
		(3)
		(6)
	Notes for question 1	
	N.B. If they have different tensions, they can score all the marks in (a) but nothing in (b). If they have $2 = T \cos(\frac{4}{5})$ or similar and never recover, allow M1A0.	
(a) M1	Horizontal equilibrium. Correct no. of terms, dimensionally correct, condone sin/cos confusion.	
A1	Correct unsimplified equation.	
A1	Correct answer. (ignore units)	
(b) M1	Vertical equilibrium. Correct no. of terms, dimensionally correct, condone sin/cos confusion and missing g , to give an equation which must include M .	
A1	Correct unsimplified equation	
A1	Correct answer. (ignore units)	