Question Number	Scheme	Marks
6	Vertical $R - P\sin\alpha = W$	M1 A1
	Horizontal $F = P\cos\alpha$ **OR** $F_{MAX} \geqslant P\cos\alpha$	 M1 A1
	$F \leqslant \frac{1}{4}R$ **or** $F = \frac{1}{4}R$ seen or implied	M1
	Produce a dimensionally correct inequality or equation in P and W only, trig does not need to be substituted	M1
	Reach the **given** answer, with exact working. $P \leqslant \frac{5W}{8}$* or $\frac{5W}{8} \geqslant P$	A1* cso
		(7)
		(7)

Notes for Question 6	
M1	Equation for vertical equilibrium. Correct number of terms, forces resolved where appropriate, condone sign errors and sin/cos confusion. M0 for an inequality
A1	Correct unsimplified equation.
M1	Equation for horizontal equilibrium. Correct number of terms, forces resolved where appropriate, condone sign errors and sin/cos confusion. **N.B.** Allow $F \geqslant P\cos\alpha$
A1	Either $F = P\cos\alpha$ or $F_{MAX} \geqslant P\cos\alpha$ where F_{MAX} may be implied by use of $\frac{1}{4}R$
M1	M0 for $F < \frac{1}{4}R$ or $F > \frac{1}{4}R$ or $F \geqslant \frac{1}{4}R$
M1	Eliminate F and R to form an inequality or equation in P and W only but allow trig to be unsubstituted. e.g. $\frac{1}{4}(W + P\sin\alpha) \geqslant P\cos\alpha$ or $\frac{1}{4}(W + P\sin\alpha) = P\cos\alpha$ M0 for use of $F < \frac{1}{4}R$ or $F > \frac{1}{4}R$ or $F \geqslant \frac{1}{4}R$ to form their inequality
A1* cso	Reach the **given** answer with at least one line of working. Must come from exact working and correct use of the inequality