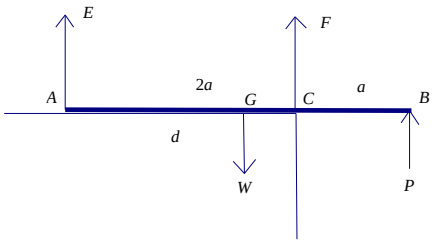
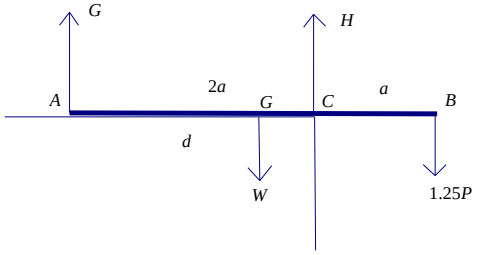
5	 M(A) **OR** $\begin{cases} F=0, E+P=W \text{ and} \\ \text{M}(C), \text{M}(B), \text{or M}(G) \end{cases}$	M1	Use of sufficient equations to form an equation in a, d, P and W only All equations dimensionally correct with correct no. of terms. **N.B.** Must be using P in this case, unless a clear misread. $\text{M}(C): aP+W(2a-d)=2aE$ $\text{M}(B): 3aE=(a+2a-d)W$ $\text{M}(G): P(a+2a-d)=dE$
	$3aP=dW$	A1	Correct unsimplified equation in a, d, P and W only
	 M (C) **OR** $\begin{cases} G=0, H=1.25P+W \text{ and} \\ \text{M}(A), \text{M}(B), \text{or M}(G) \end{cases}$	M1	Use of sufficient equations to form another equation in a, d, P and W only All equations dimensionally correct with correct no. of terms. **N.B.** Must be using $1.25P$ in this case, unless a clear misread. $\text{M}(A): Wd+3a\times1.25P=2aH$ $\text{M}(B): aH=(a+2a-d)W$ $\text{M}(G): 1.25P(a+2a-d)=(2a-d)H$
	$1.25Pa=W(2a-d)$	A1	Correct unsimplified equation in a, d, P and W only
	Solve for d in terms of a	DM 1	Complete method. Dependent on the two preceding M marks
	Obtain $(d=)\dfrac{24a}{17}$	A1	Accept $d=1.4a$ or better (d = 1.41176…a) but NOT $\dfrac{6a}{4.25}$ or similar.
			N.B. If W is replaced by say, Mg or M etc, can score all the marks but if they use Wg with P in their equations, can score max M1A0M1A0DM1A0.
		(6)	
		(6)	
	N.B. Enter marks on ePEN for the two equations in the same order as they appear in the MS.		