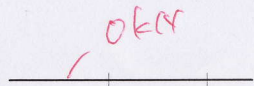
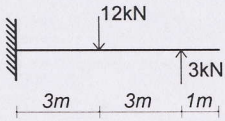


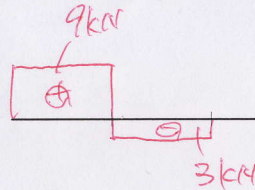
建築構造力学 IA・同演習 第2回 中間試験 実施日2012/06/20	学生証 番号	氏名 <b>解答</b>	得点
--	-----------	-----------------	----

軸力図 (AFD)、せん断力図 (SFD)、曲げモーメント図 (BMD) を図中に描きなさい。  
ただし各断面力が部材内ですべて0の場合は、0を図に書きなさい。

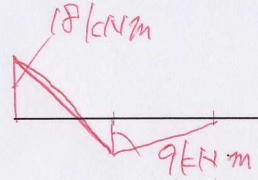
(1)



AFD

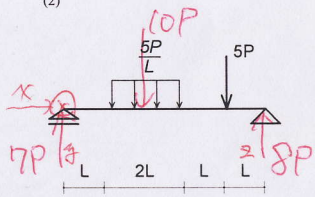


SFD

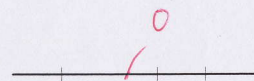


BMD

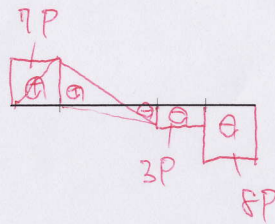
(2)



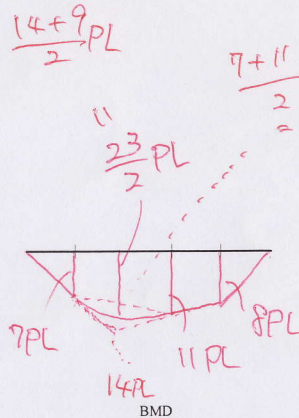
$$\begin{aligned} \sum X_i &= 0 = x \\ \sum Y_i &= y + z - 10P = 0 \\ \sum M_i &= 10P \times 2L + 5P \times 4L - z \times 5L \\ x &= 0, y = 7P, z = 8P \end{aligned}$$



AFD

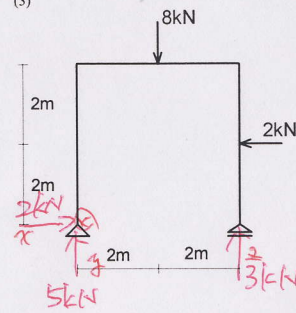


SFD

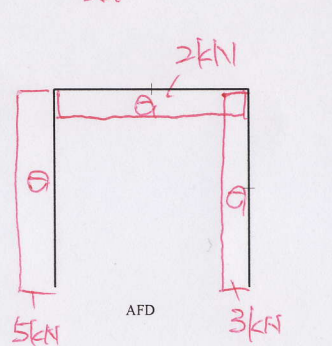


BMD

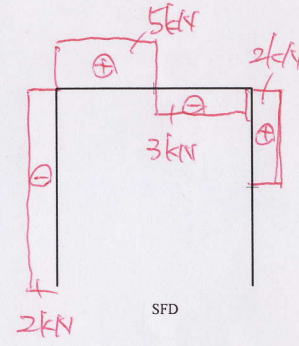
(3)



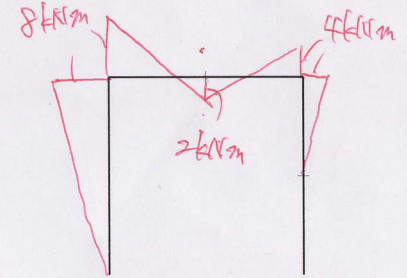
$$\begin{aligned} \sum X_i &= x - 2kN = 0 \\ \sum Y_i &= y + z - 8kN = 0 \\ \sum M_i &= 8kN \times 2m - 2kN \times 2m - z \times 4m = 0 \\ x &= 2kN, y = 5kN, z = 3kN \end{aligned}$$



AFD

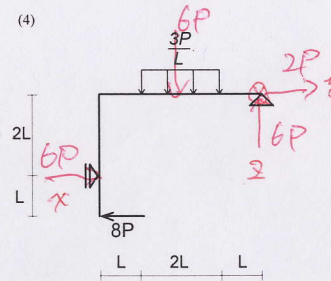


SFD

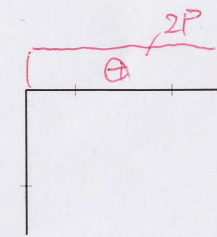


BMD

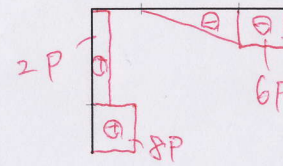
(4)



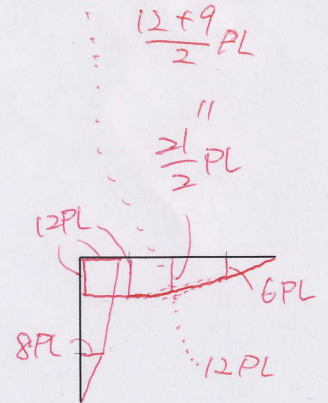
$$\begin{aligned} \sum X_i &= x + y - 6P = 0 \\ \sum Y_i &= z - 6P = 0 \\ \sum M_i &= -6P \times 2L + 6P \times 3L - x \times 2L = 0 \\ x &= 6P, y = 2P, z = 6P \end{aligned}$$



AFD



SFD



BMD