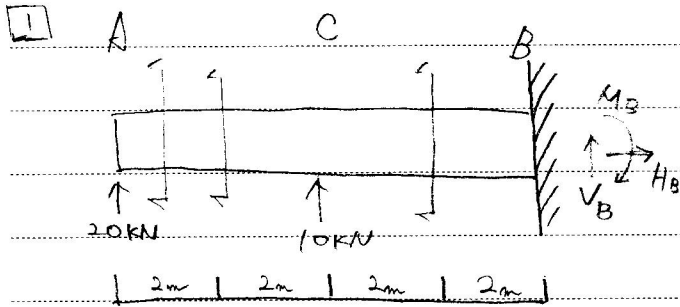


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(1) カのつぎをよ

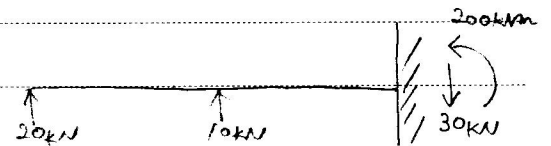
$$20 + 10 + V_B = 0$$

$$V_B = -30 \text{ kN}$$

B点まわりのつぎをよ

$$20 \cdot 8 + 10 \cdot 4 + M_B = 0$$

$$M_B = -200 \text{ kNm}$$



(2) $0 \leq x < 4$ のとき $Q_x = 20 \text{ kN}$, $M_x = 20x \text{ kNm}$

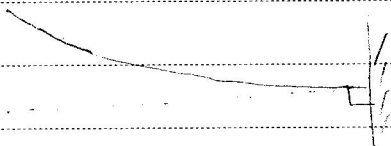
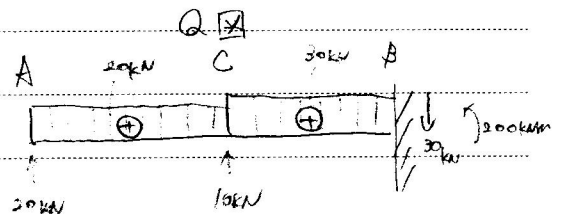
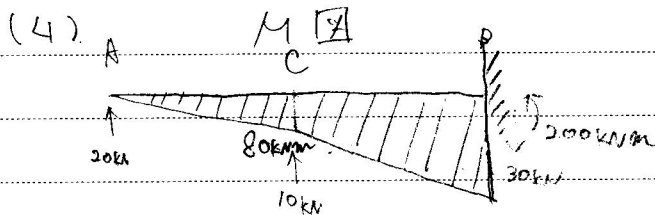
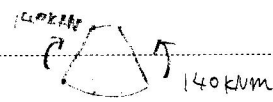
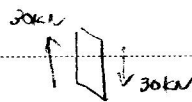
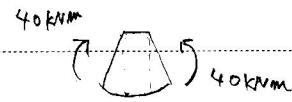
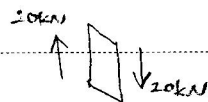
$4 \leq x \leq 8$ のとき $Q_x = 30 \text{ kN}$ $M_x = 20x + 10(x-4)$
 $= 30x - 40 \text{ kNm}$

(3) $x = 2$ のとき $Q = 20 \text{ kN}$

$$M = 40 \text{ kNm}$$

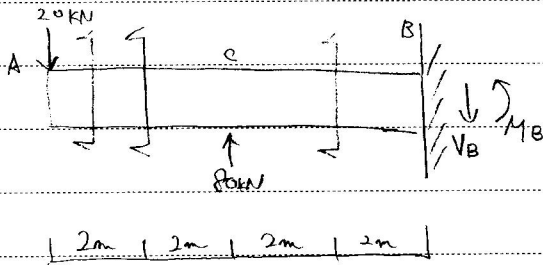
$x = 6$ のとき $Q = 30 \text{ kN}$

$$M = 140 \text{ kNm}$$



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(1) 力のつり合いより

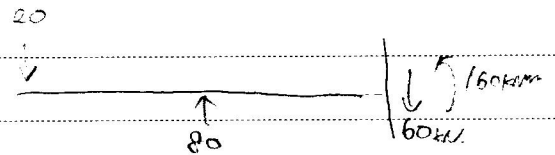
$$-20 + 80 - V_B = 0$$

$$V_B = 60 \text{ kN}$$

B点まわりのモーメントのつり合いより

$$-20 \cdot 8 + 80 \cdot 4 - M_B = 0$$

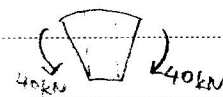
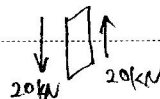
$$M_B = 160 \text{ kNm}$$



(2) $x = 2 \text{ m}$ とき

$$Q = 20 \text{ kN}$$

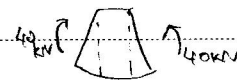
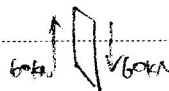
$$M = -40 \text{ kNm}$$



$x = 6 \text{ m}$ とき

$$Q = -60 \text{ kN}$$

$$M = 40 \text{ kNm}$$



(3)

