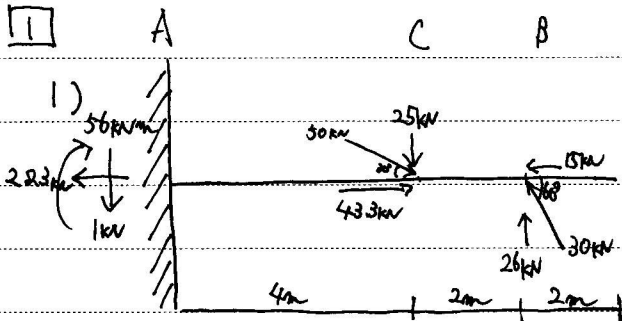


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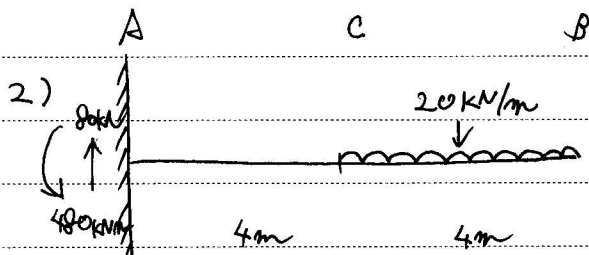
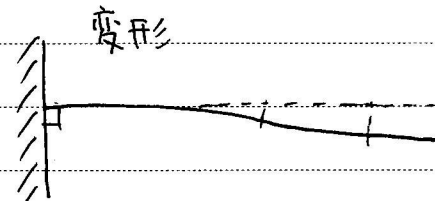
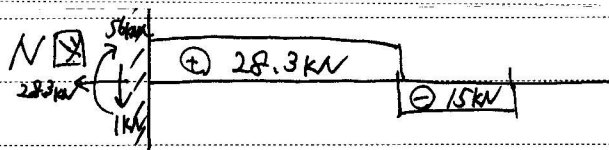
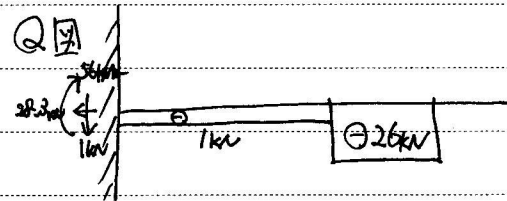
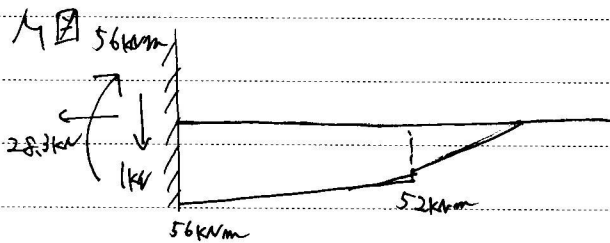


反力.

$$V_a - 25 + 26 = 0 \quad V_a = -1 \text{ kN}$$

$$H_a + 43.3 - 15 = 0 \quad H_a = -28.3 \text{ kN}$$

$$M_a + 25 \cdot 4 - 26 \cdot 6 = 0 \quad M_a = 56 \text{ kNm}$$

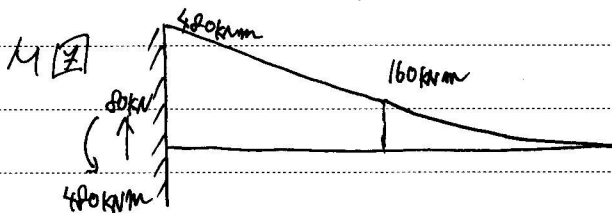


i) BC 間.

$$M = 20x - \frac{1}{2}x^2$$

$$= 10x^2$$

$$Q = 20x.$$

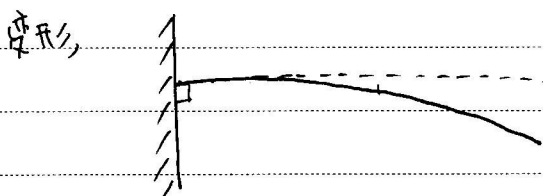
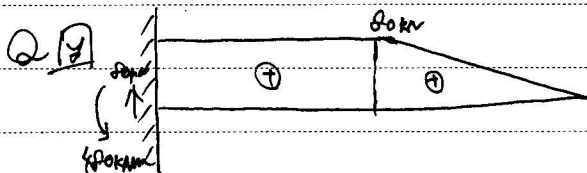


ii) AC 間

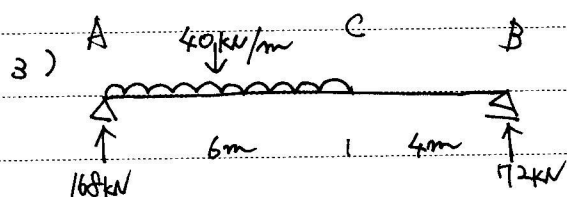
$$M = 80(x-2)$$

$$= 80x - 160$$

$$Q = 80.$$



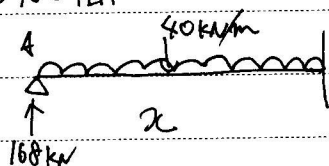
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$$V_A \cdot 10 - 240 \cdot 7 = 0$$

$$V_A = 168 \text{ kN} \quad V_B = 72 \text{ kN}$$

i) AC間



$$M = -40x \cdot \frac{1}{2}x + 168x$$

$$= -20x^2 + 168x$$

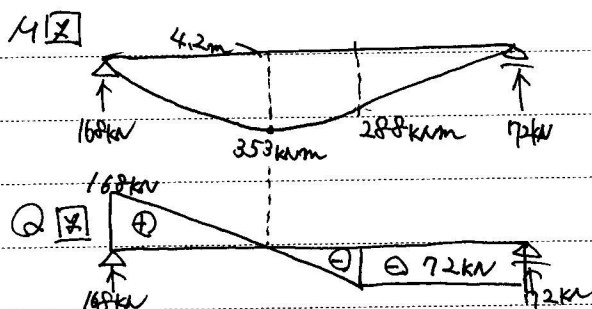
$$Q = 168 - 40x$$

$$Q = 0 \text{ とき } x = 4.2 \text{ m とき}$$

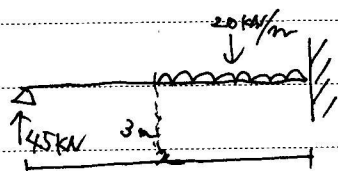
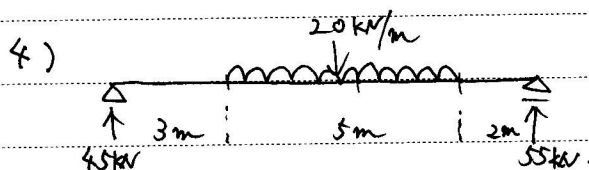
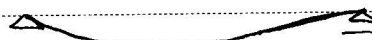
$$M_{\max} = -20 \cdot 4.2^2 + 168 \cdot 4.2$$

$$= -352.8 \text{ kNm}$$

ii) CB間



変形



$$M = 45x - 20(x-3) \cdot \frac{1}{2}(x-3)$$

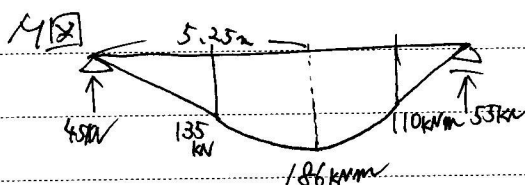
$$= 45x - 10(x-3)^2$$

$$Q = 45 - 20(x-3)$$

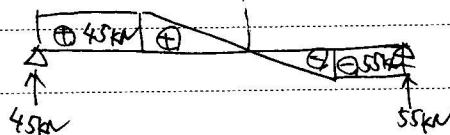
$$= -20x + 105$$

$$Q = 0 \text{ とき } x = 5.25 \text{ m とき}$$

$$M_{\max} = 185.62 = 186 \text{ kNm}$$



Q



変形

