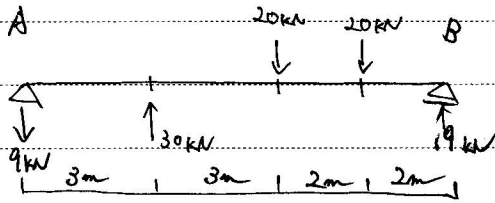


授業科目 _____ 学科 _____ 年次 _____ 学籍番号 _____ 氏名 _____

1)



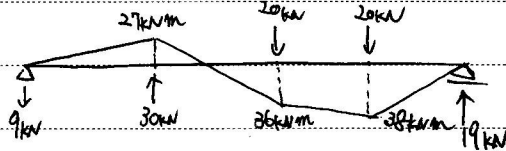
反力

$$-30 \cdot 3 + 20 \cdot 6 + 20 \cdot 8 - V_B \cdot 10 = 0$$

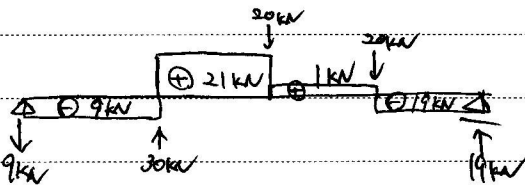
$$280 - 90 = V_B \cdot 10 \quad V_B = 19 \text{ kN}$$

$$30 - 20 - 20 + 19 + V_A = 0 \quad V_A = -9 \text{ kN}$$

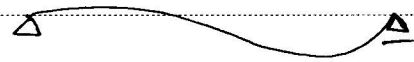
M



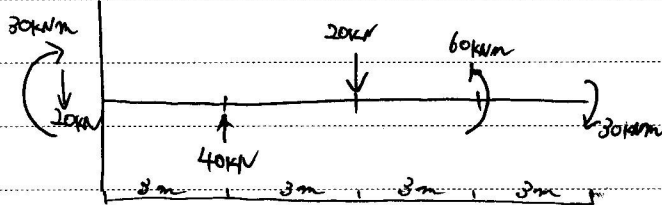
Q



変形



2)



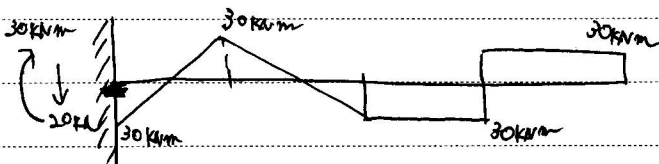
反力

$$-40 \cdot 3 + 20 \cdot 6 - 60 + 30 + M_A = 0$$

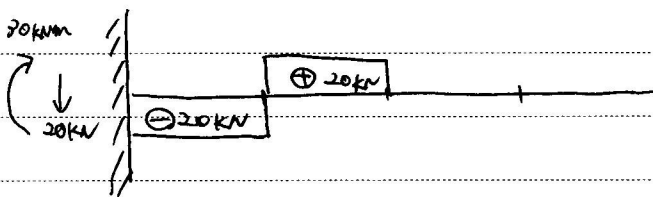
$$M_A = 30 \text{ kNm}$$

$$-V_A + 40 - 20 = 0 \quad V_A = 20 \text{ kN}$$

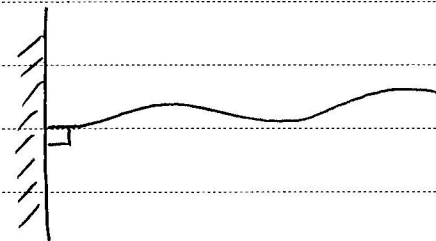
M



Q

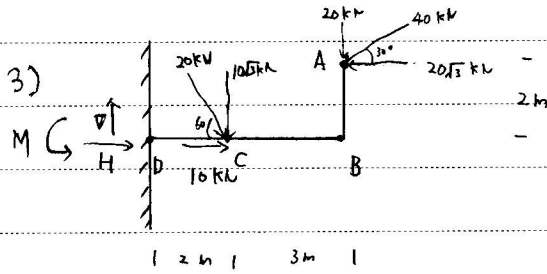


変形



試 験 用 紙 (年 月 日)

授業科目 機械I - No.6 学科 _____ 年次 _____ 学籍番号 _____ 氏名 _____



$$V_D = 20 + 10\sqrt{3} \approx 37.3 \text{ kN}$$

$$H_D = 20\sqrt{3} - 10 \approx 24.6 \text{ kN}$$

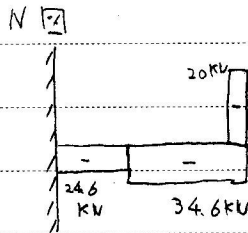
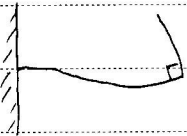
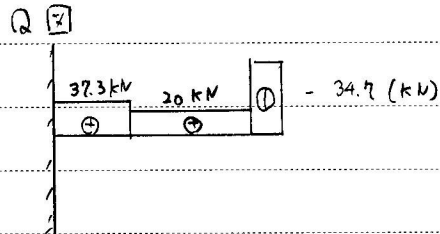
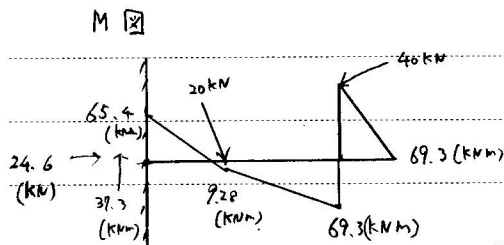
$$M_D = 20 \cdot 5 + 10\sqrt{3} \cdot 2 - 20\sqrt{3} \cdot 2$$

$$= 100 - 20\sqrt{3}$$

$$\approx 65.4 \text{ (kNm)}$$

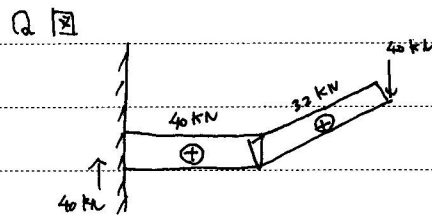
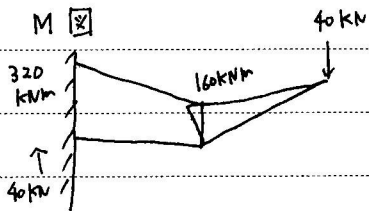
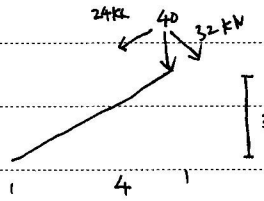
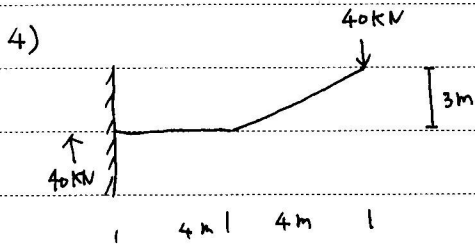
$$M_C = 20 \cdot 3 - 20\sqrt{3} \cdot 2 \approx -9.28 \text{ (kNm)}$$

$$M_B = -20\sqrt{3} \cdot 2 = -69.3 \text{ (kNm)}$$

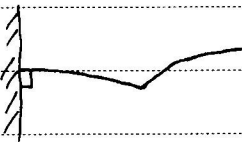


試 験 用 紙 (年 月 日)

授業科目 _____ 学科 _____ 年次 _____ 学籍番号 _____ 氏名 _____



変形概略



N

