

CE 231 STATICS

SECTION 2

SOLUTION OF HOMEWORK NO1

PROBLEM (6-77) (Text P 305)

First take entire frame:

$$\sum F_x = 0.$$

$$-D_x + 0 = 0.$$

$$D_x = 0$$

$$\sum F_y = 0.$$

$$-2 - 2 - 2 - 2 + D_y = 0.$$

$$\Rightarrow D_y = 8 \text{ kN}$$

$$\sum M_D = 0$$

$$M_D - 2(0.5) - 2(1) - 2(1.5) - 2(2) = 0$$

$$\Rightarrow M_D = 10 \text{ kN}\cdot\text{m}$$

