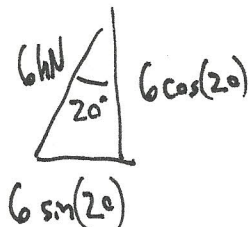
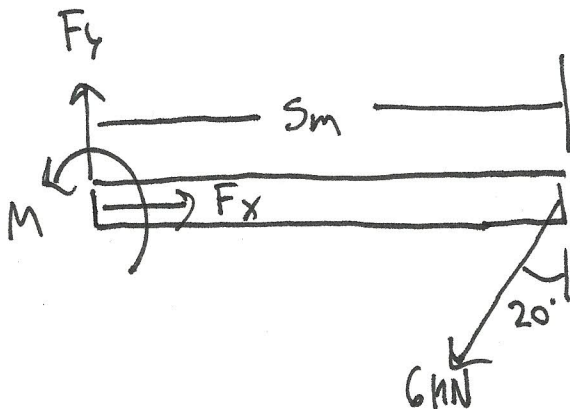
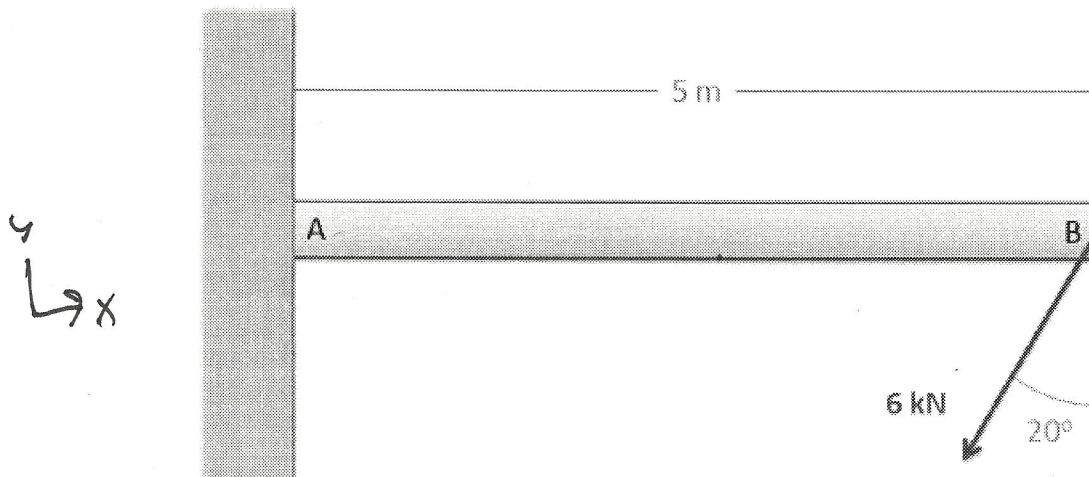


Question 2:

A 5 meter long beam has a fixed connection to a wall at point A and a force acting as shown at point B. What are the reaction forces acting on the beam at point ~~B~~
A



$$\sum F_x = F_x - 6 \sin(20) = 0$$

$$\sum F_y = F_y - 6 \cos(20) = 0$$

$$\sum M_A = M - (5)(6 \cos(20)) = 0$$

$$F_x = 6 \sin(20)$$

$$F_x = 2.05 \text{ kN}$$

$$F_y = 6 \cos(20)$$

$$F_y = 5.64 \text{ kN}$$

$$M = (5)(6 \cos(20))$$

$$M = 28.19 \text{ kNm}$$