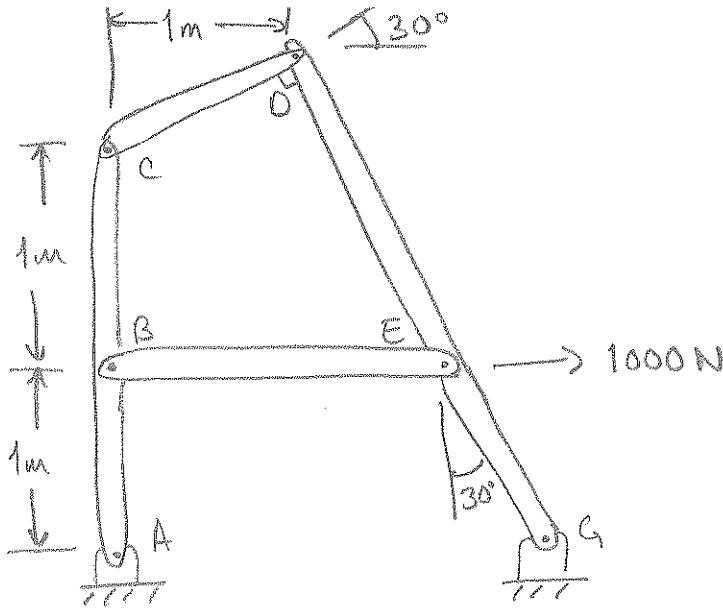
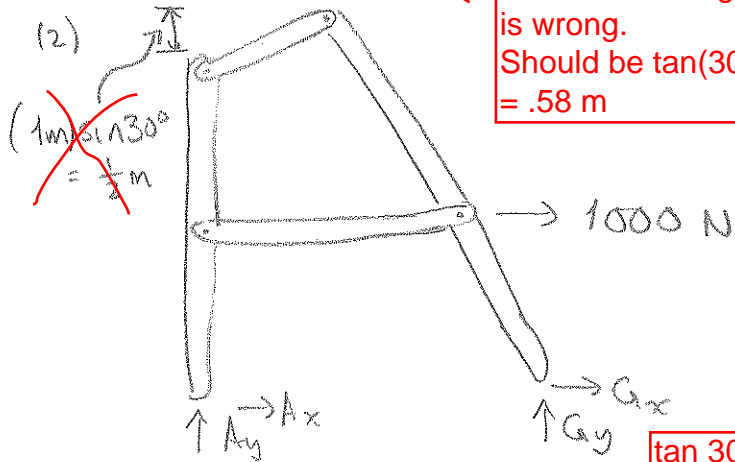
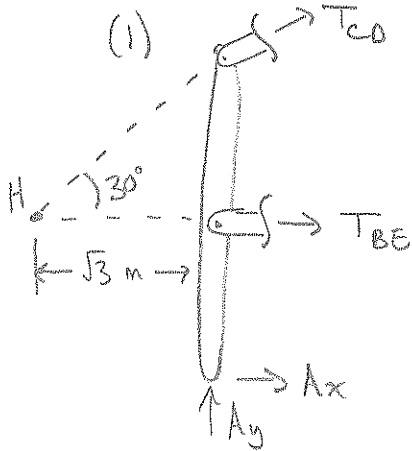


5.4.9)



Find reaction at A

note that BE and CD are two force members



The vertical height marked is wrong. Should be $\tan(30 \text{ deg}) \text{ m} = .58 \text{ m}$

using FBD 2, $\sum M_G = -(1000 \text{ N})(1 \text{ m}) - A_y [1 \text{ m} + (2.5 \text{ m}) \sin 30^\circ] = 0$

$$A_y = - \frac{1000 \text{ N m}}{1 \text{ m} + 1.25 \text{ m}} = -444 \text{ N}$$

1.49 m

-402 N

using FBD 1,

$$\sum M_H = A_x (1 \text{ m}) + A_y (\sqrt{3} \text{ m}) = 0$$

$$A_x (1 \text{ m}) - 444 \text{ N} (\sqrt{3} \text{ m}) = 0$$

$$A_x = 444\sqrt{3} \text{ N} = 769 \text{ N}$$

$$A_x = 769 \text{ N} \text{ and } A_y = -444 \text{ N}$$