

4-9

$$M_A = -F \cos 30 [18] - F \sin 30 [5]$$

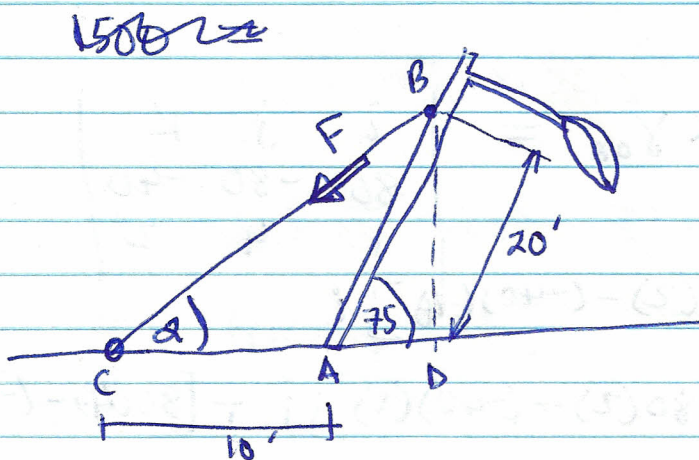
we are told we need $M_A = -500 \text{ lb}\cdot\text{in}$

$$-500 = -15.58 F - 2.5 F$$

$$18.08 F = 500$$

$$F = 27.65 \text{ lb.}$$

4-25



$$AD = 20 \cos 75 = 5.17'$$

$$BB = 20 \sin 75 = 19.32'$$