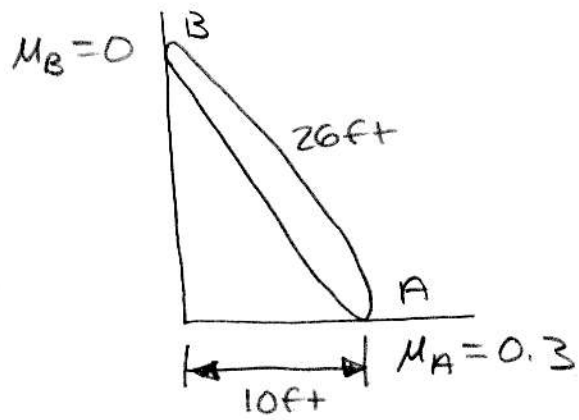


Problem 1

If the weight of the pole is 30 lb, will the pole remain in this position?

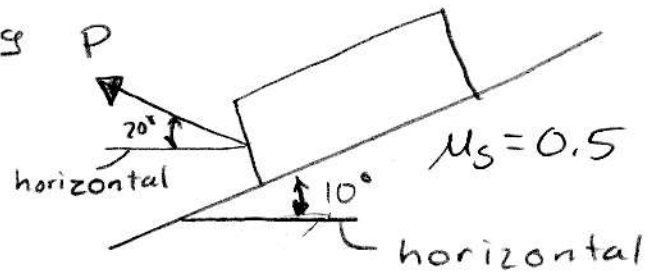


Answer: Yes

Problem 2

The crate has a mass of 350 kg

Determine the magnitude of P to just start the crate moving down the plane

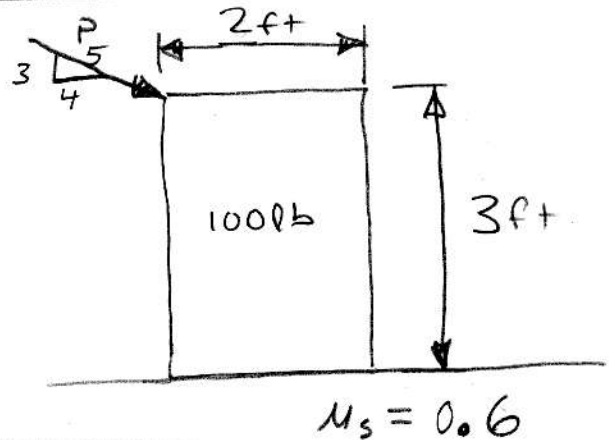


Answer: 981 N

Problem 3

Determine the smallest P that will cause impending motion

Answer: 83.3 lb



Problem 4

$W_{AB} = 20 \text{ lb}$, $W_{AC} = 75 \text{ lb}$

Determine the greatest angle θ between the plates so that they can remain in equilibrium

Answer: 80.9°

