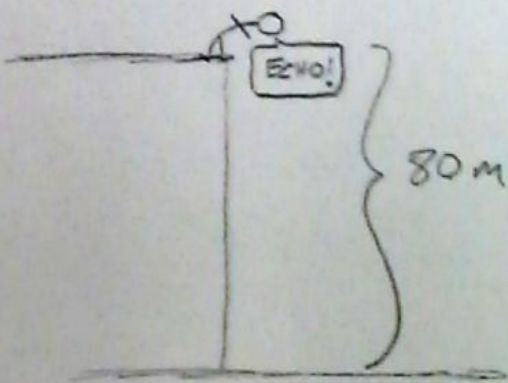


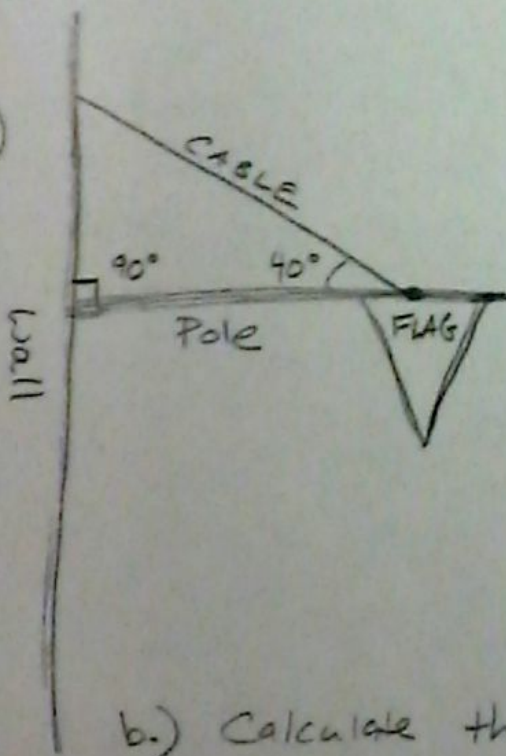
1.) Billy is on a cliff 80 meters high.

He yells straight down in order to hear if there is an echo. The speed of sound is 331 m/s .

How much time passes from when Billy yells until he hears an echo?



2.)

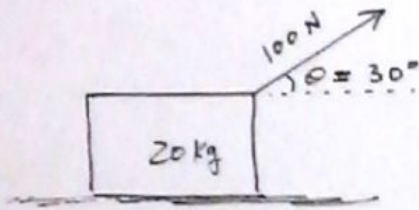


A flag is hanging as shown. The flag is supported by a cable and pole from the wall. Flag mass is 5 kg .

a.) Draw a force diagram for the flag.

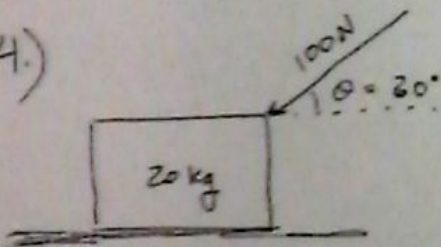
b.) Calculate the tension in the cable.

3.)



A box is being pulled along the ground with a slanted force as shown. The coefficient of kinetic friction between the box and the ground is $\mu_k = .3$ a.) Find the acceleration of the box. b.) Find force normal.

4.)



A box is being pushed along the ground with a slanted force as shown. The coefficient of kinetic friction between the box and the ground is $\mu_k = .3$ a.) Find the acceleration of the box. b.) Find force normal.