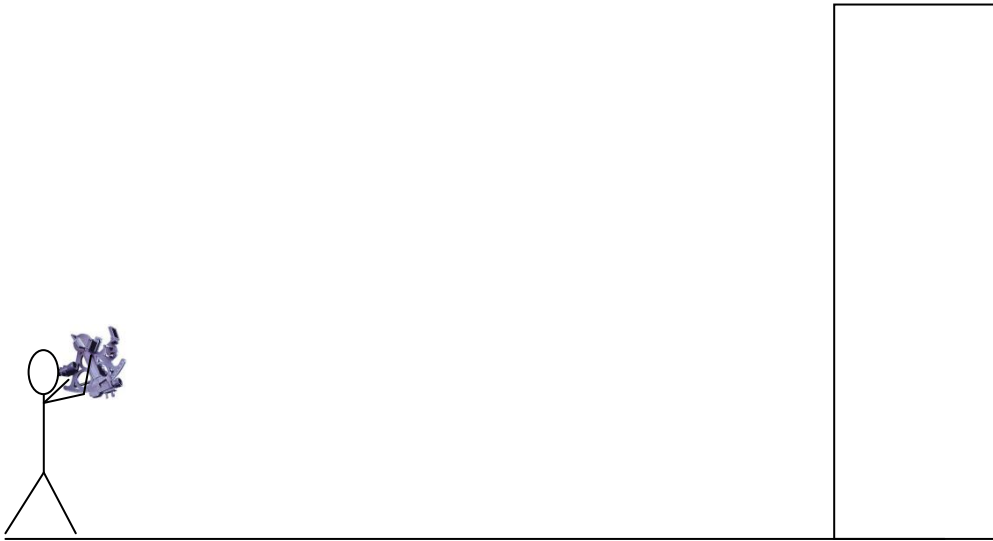
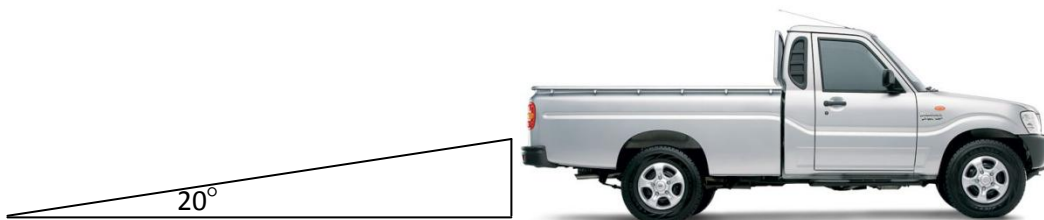


Topic 26 Applications

1) A person using a sextant is standing 120 feet from a building. Through the sextant they view the top of the building and the sextant reads 62 degrees. The person's eye is 5.5 feet above the ground. How tall is the building?



2) A person wants to build a truck ramp. They want it to be at most, a 20 degree incline. The ramp needs to rise up 30 inches. How long will the ramp be?



3) Super Challenge (Hint, you will need a system of 2 equations)

You and a friend see a strange object in the sky hovering. You both have access to sextants and you stand 100 feet apart. You stand behind your friend 100 feet and sight the object at an inclination of 83 degrees. Your friend in front of you sights the object in at an inclination of 85 degrees. How high is the strange object?

