Mr. Gunstenson
WAM 10

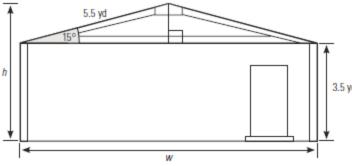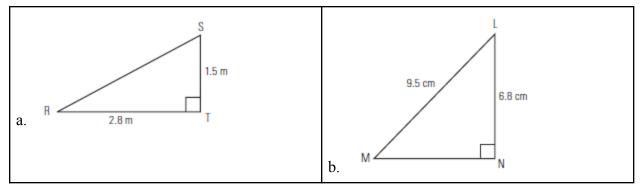## Unit 5 - WA10.8 - Trigonometry Practice Questions #4

Be sure to input your answers here to receive credit: https://bit.ly/3wJltlT

1. Calculate the angle to the nearest degree.
   a. sin D = 0.5491
   b. cos F = 0.8964
   c. tan G = 2.3548
   d. sin H = 0.9998
2. What is the angle of depression from the top of a 65-metre cliff to an object 54 metres from its base?
3. At what angle to the ground must you place a support if it is 7.2 metres long and must reach 4.2 metres up the side of a tower?
4. At what angle to the ground is an 9-metre long conveyor belt if it is fastened 5 metres from the base of a loading ramp?
5. The two equal angles of an isosceles triangle are each 70°. Determine the measures of other side legs if it has a height of 22 cm.
6. The length of the rafter is 5.5 yards, and the side height of the building is 3.5 yards. Determine the width of the building and its total height.

7. Solve the following triangles.

a.

b.

8. What height is a pole, and how far away from it is a cable attached to the ground, if the angle of elevation is 25° and the cable is 21 m long?
9. What is the angle of elevation if a ramp with a height of 1 metre and a horizontal length of 3 metres?
10. A grain auger is 31 feet long. The largest angle of elevation at which it can safely be used is 75°. What is the maximum height to which it can reach and how far from the base of the granary will it be, assuming that it dumps right at the edge?
11. Maura's driveway has an angle of depression of 40° from the flat roadway. If it levels off to the garage floor, which is 4 metres below the roadway, how long is the driveway and how far into the lot is the garage entrance?