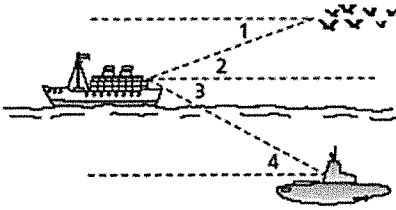


# Angles of Elevation and Depression Worksheet

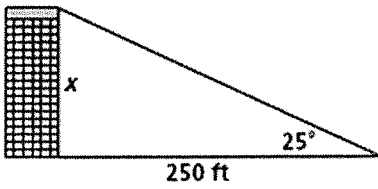
Name: \_\_\_\_\_

Describe each angle as it relates to the diagram.

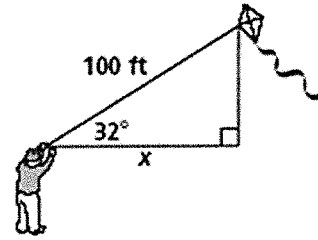
1. a.  $\angle 1$
- b.  $\angle 2$
- c.  $\angle 3$
- d.  $\angle 4$



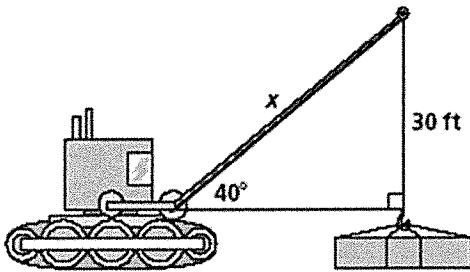
Determine the type of the angle on the figure then find the missing side in each problem.



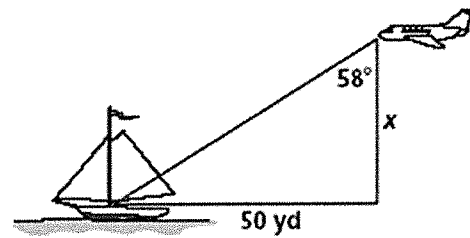
Angle of \_\_\_\_\_



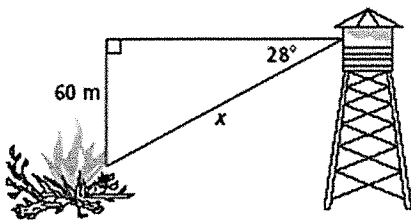
Angle of \_\_\_\_\_



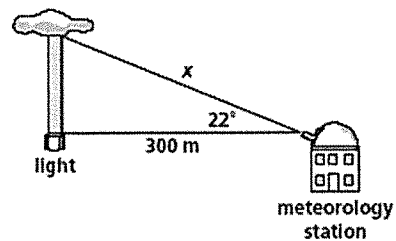
Angle of \_\_\_\_\_



Angle of \_\_\_\_\_



Angle of \_\_\_\_\_



Angle of \_\_\_\_\_

1. A 15 ft tree casts a 12 ft shadow. Find the angle of elevation to the sun at that time. Draw a picture and find the angle.
  
2. A ladder 12 ft long leans against a building and makes a 32 degree angle with level ground. How far up the building does the ladder reach? What type of angle is this? Draw a picture and find the angle
  
3. A ship is 350 ft from a lighthouse, which is 40 ft tall. Find the angle of depression from the top of the lighthouse to the ship. Draw a picture
  
4. A boat is 150 m from a tree on shore. If the angle of elevation from the boat to the top of the tree is 38 degrees, find the distance from the boat to the top of the tree.

5. From a cliff overlooking the Potomac, the angle depression to a ship is 29 degrees. If the ship is 120 ft from shore, how tall is the cliff?

6. The angle of depression from a plane to the runway below is 45 degrees. If the altitude of the plane is 600 ft, what is the distance from a point directly below the plane (on the ground) to the edge of the runway?

7. The crossbar of a field goal post is 10 ft high. Find the angle of elevation from a point 120 ft away. Draw a picture

8. Two buildings are 50 m apart. If the height of each building is 20 m, find the angle of elevation from the base of one building to the top of the other. Draw a picture