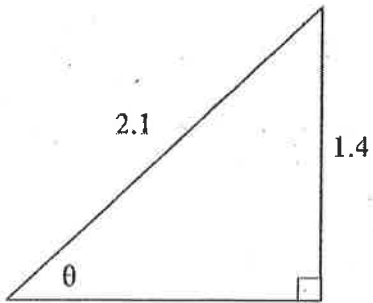
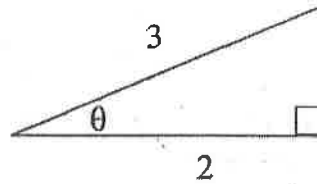


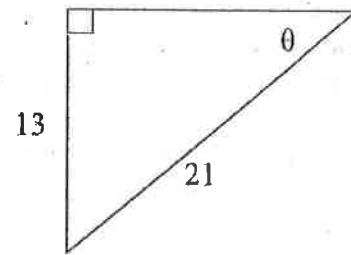
7. Solve the triangle, to the nearest tenth



Solve the triangle, to the nearest tenth



Solve the triangle, to the nearest tenth



8. You are 200 yards from a river. Rather than walking directly to the river, you walk 400 yards along a straight path to the river's edge. Find the acute angle between path and the river's edge.

A 12 meter flagpole casts a 9 meter shadow. Find the angle of elevation of the sun.

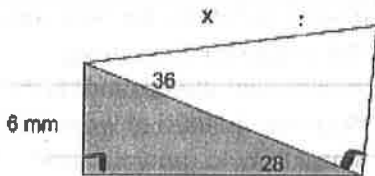
Suppose you're flying a kite, and it gets caught at the top of the tree. You've let out all 100 feet of string for the kite, and the angle that the string makes with the ground is 75 degrees. Instead of worrying about how to get your kite back, you wonder. "How tall is that tree?"

9. A submersible traveling at a depth of 250 feet dives at an angle of  $15^\circ$  with respect to a line parallel to the water's surface. It travels a horizontal distance of 1500 feet during the dive. What is the depth of the submersible after the dive?

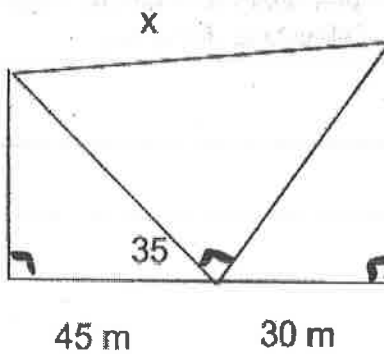
A fire department's longest ladder is 110 feet long, and the safety regulation states that they can use it for rescues up to 100 feet off the ground. What is the maximum safe angle of elevation for the rescue ladder?

Brothers Bob and Tom Katz buy a tent that has a center pole 6.25 feet high. If the sides of the tent are supposed to make a  $50^\circ$  angle with the ground, how wide is the tent?

10. Find  $x$



Find  $x$



Find  $x$

