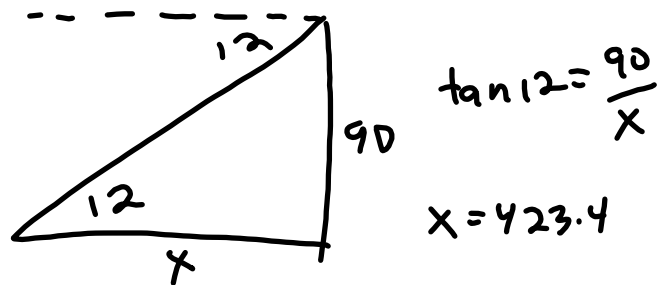


## ACP Geometry

## More Practice w/ word Problems

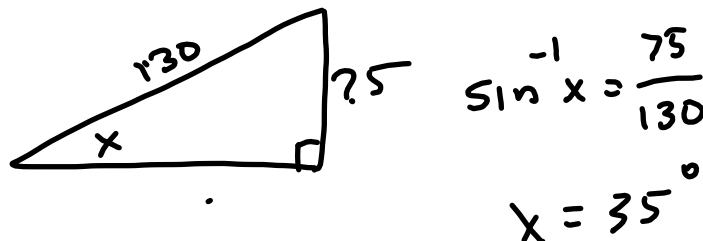
1) Katelyn is on the lighthouse deck looking out at the water. She sees Audrey waving to her from a boat. The angle of depression from the lighthouse to the boat is  $12^\circ$ . The lighthouse deck is 90ft. above the water.

Ignoring Katelyn's height, how far is the boat from the base of the lighthouse? Round to the nearest foot



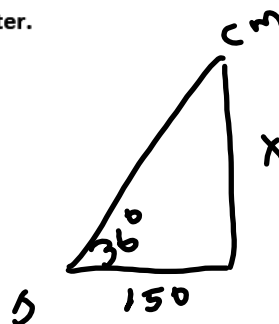
2) Paige and Samantha are sledding down a hill. The length of the slope is 130m. The vertical drop is 75 m.

What is the angle of elevation of the hill? Round to the nearest degree.



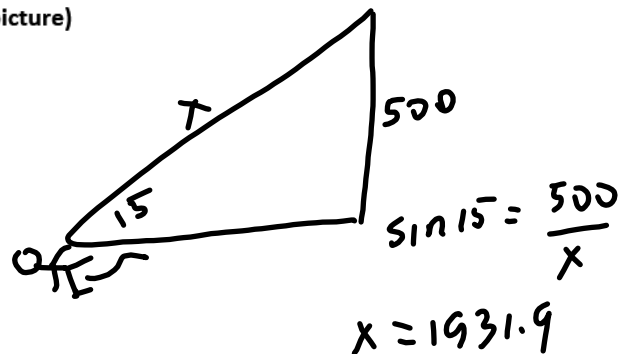
3) Jess stands 150 meters from a water tower and sees Connor and Matt at the top of the water tower. The angle of elevation from Jess's feet to the water tower is  $36^\circ$ .

How tall is the water tower? Round to the nearest meter.



4) Liam and Chris are running in a cross country event. Part of the course goes through the woods and then the trail goes up a hill. The hill is 500 ft tall. Chris tripped over the roots of a tree and is on the ground at the base of the hill looking UP to the top of the hill. The angle of elevation is  $15^\circ$ .

How far is it to the top of the hill? (Draw a picture)



5) Daniella, Tiffany and Holly are going to Hawaii to visit with Maria who has moved to Maui. Their plane has been flying over the Pacific Ocean as it approaches Hawaii. They just pass over the volcano, which is 1000 ft. tall. They are only 300ft up from the top of the Volcano when they begin their decent to the runway. The angle of decent is  $17^\circ$  (it is a little island).

What is the distance from the start of the runway to the center of the base of the volcano?  
Draw a picture.

