

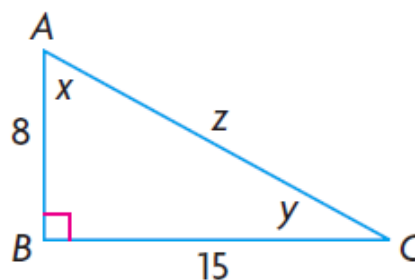
Applying Primary Trigonometric Ratios to Problems

Learning Goal:

By the end of today, I will not chicken out from attempting a word problem, I will face it head on, and even if I am not successful, I will know I have at least tried.

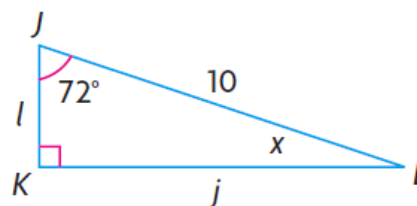
Nov 14-2:06 PM

Find the missing sides and angles for the following triangle.



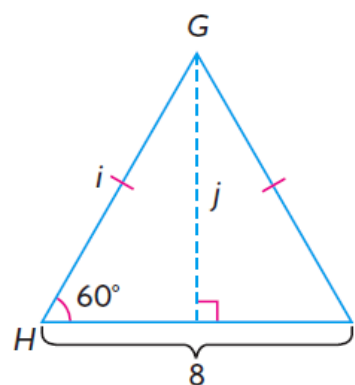
Nov 14-1:58 PM

Find the missing sides and angles for the following triangle.



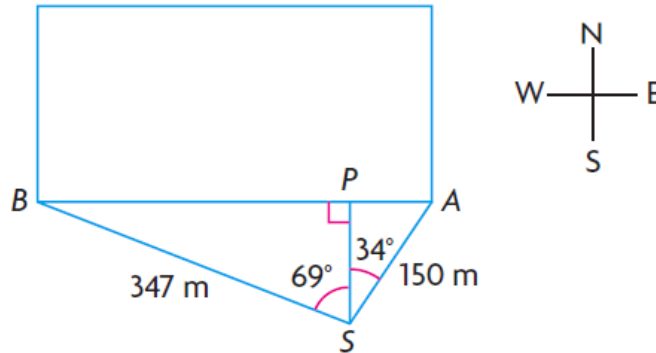
Nov 14-1:59 PM

Find the missing sides and angles for the following triangle.



Nov 14-1:59 PM

A surveyor stands at point S and uses a laser transit and marking pole to sight two corners, A and B , on one side of a rectangular lot. The surveyor marks a reference point P on the line AB so that the line from P to S is perpendicular to AB . Corner A is 150 m away from S and 34° east of P . Corner B is 347 m away from S and 69° west of P .

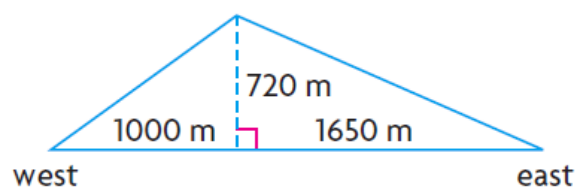


? How long, to the nearest metre, is the lot?

Nov 14-2:00 PM

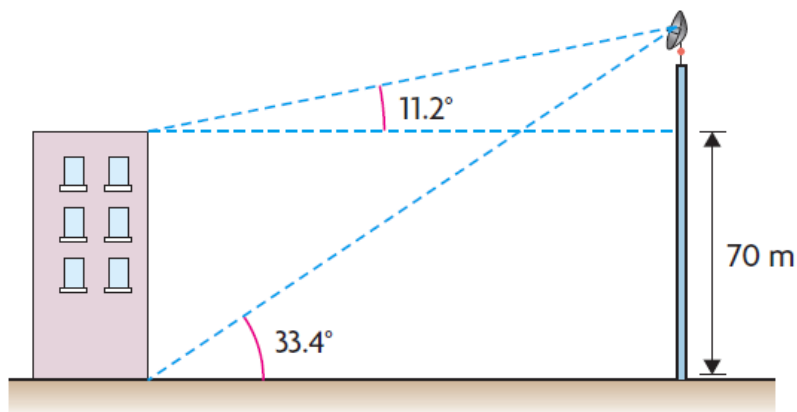
Karen is a photographer taking pictures of the Burlington Skyway bridge. She is in a helicopter hovering 720 m above the bridge, exactly 1 km horizontally from the west end of the bridge. The Skyway spans a distance of 2650 m from east to west.

- From Karen's position, what are the angles of depression, to the nearest degree, of the east and west ends of the bridge?
- If Karen's camera has a wide-angle lens that can capture 150° , can she get the whole bridge in one shot?



Nov 14-2:00 PM

A communications tower is some distance from the base of a 70 m high building. From the roof of the building, the angle of elevation to the top of the tower is 11.2° . From the base of the building, the angle of elevation to the top of the tower is 33.4° . Determine the height of the tower and how far it is from the base of the building. Round your answers to the nearest metre.



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