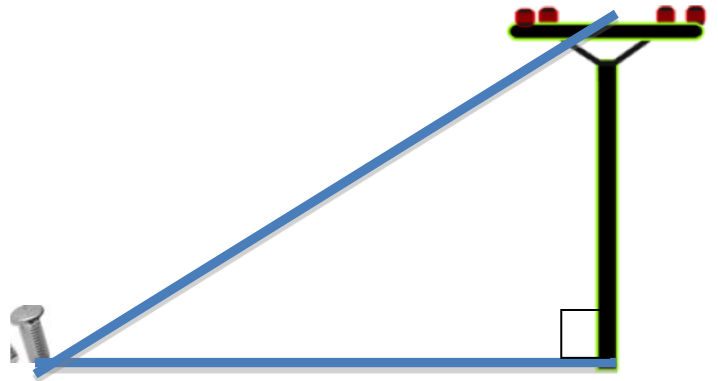


K12MATH8: Subunit 4.3.1
Howard County Public School System's "Application Stations"
Answer Key

#1

A 250-ft cable runs from the top of a telephone pole to a stake that is 160 ft from the center of the telephone pole. How tall is the telephone pole?

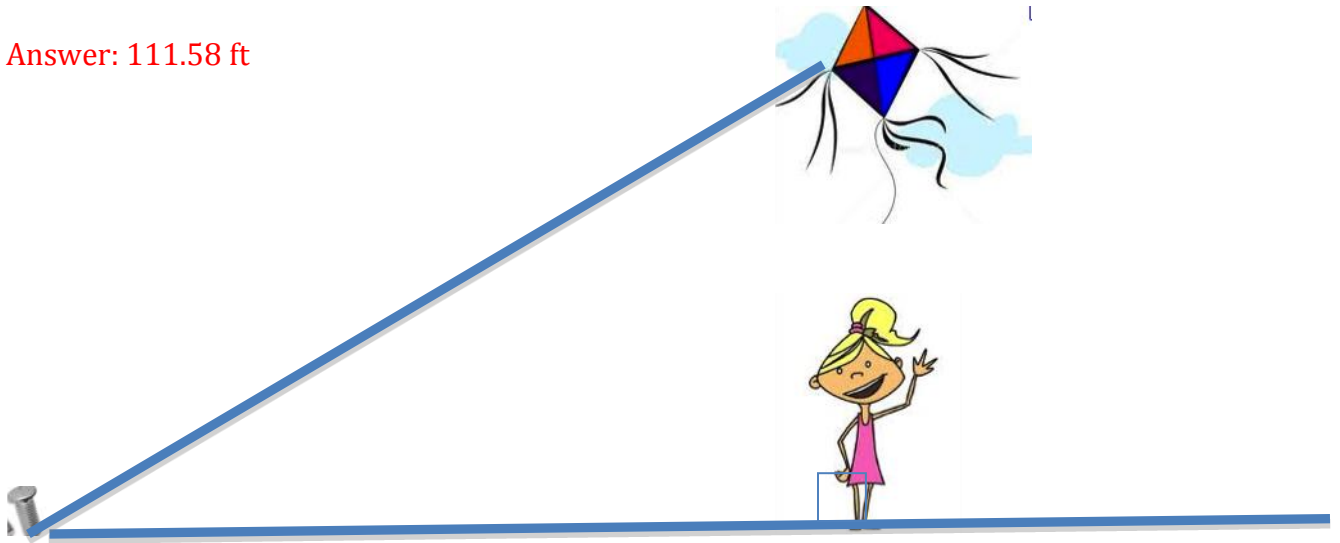
Answer: 192.09 ft



#2

A kite with a 120-ft string attached to the ground is flying directly over the head of Seleana. Seleana is 24 ft from where the kite is attached to the ground. If Seleana is 6 ft tall, how far above her head is the kite?

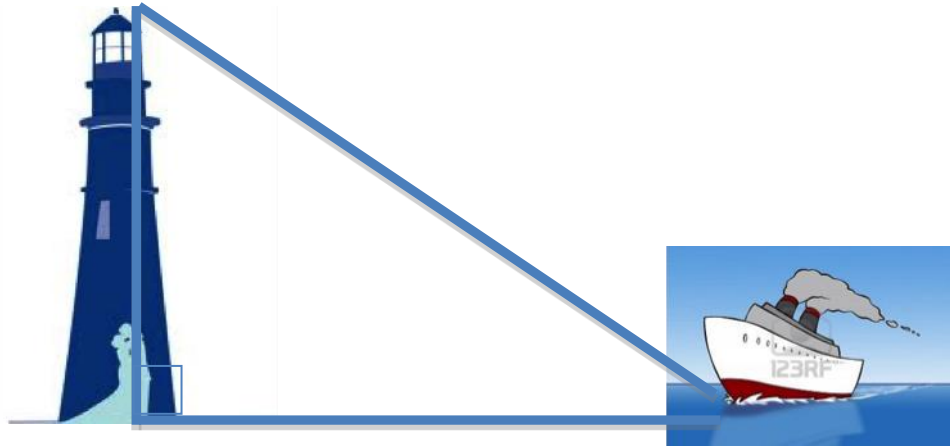
Answer: 111.58 ft



#3

A cruise ship's captain knows that a lighthouse on the coast is 150 m tall. The distance from the front of the cruise ship to the top of the lighthouse is 230 m. How far away is the cruise ship from the center of the base of the lighthouse?

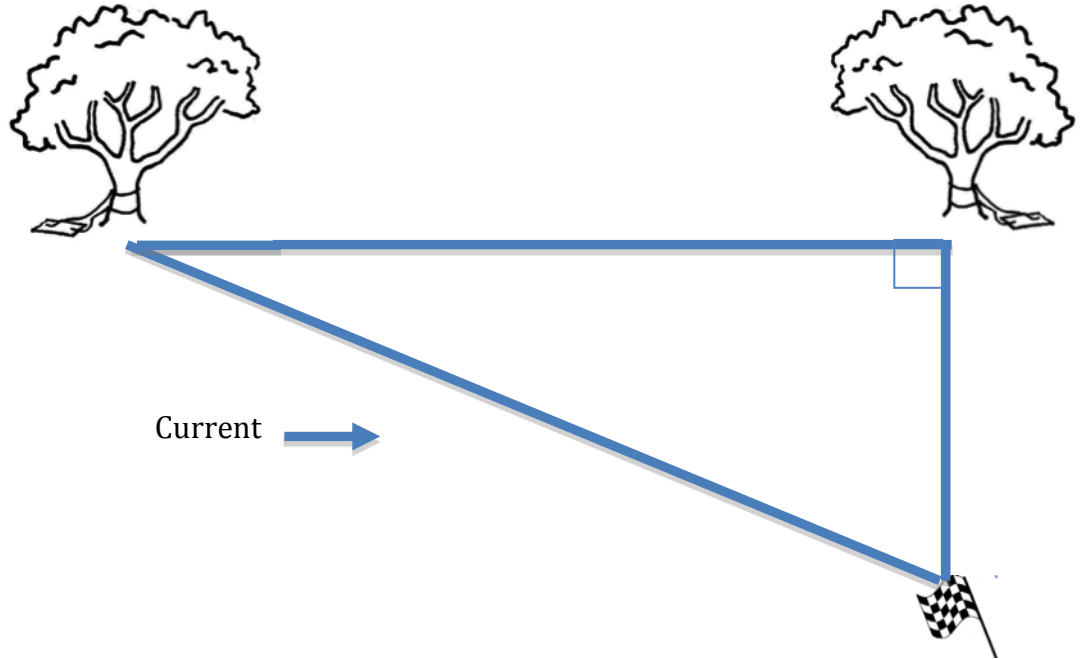
Answer: 174.36 m



#4

Jason's goal is to swim across a river with a width of 44 ft. He is standing in a tree directly across from the flag he will use as his finishing point. He can't swim directly across from this point because the current will carry him downstream. If he walks 100 ft upstream to a different tree to start his swim, the current will carry him directly to the flag. How far will Jason actually swim?

Answer: 109.25 ft



#5

A 38-ft tree cast a 45-ft shadow on the ground. What is the distance from the top of the tree to the top of its shadow?

Answer: 58.90 ft

