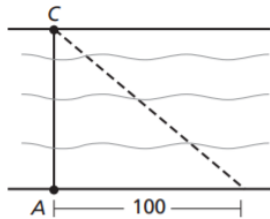


## Trigonometry Homework

Tuesday, March 1, 2022 8:14 AM

8. An environmentalist wants to measure the width of a river to monitor its erosion. From point  $A$ , she walks downstream 100 feet and measures the angle from this point to point  $C$  to be  $40^\circ$ .

a. How wide is the river? Round to the nearest tenth.



9. A boy flies a kite at an angle of elevation of  $18^\circ$ . The kite reaches its maximum height 300 feet away from the boy. What is the maximum height of the kite? Round to the nearest tenth.

14. A camera attached to a kite is filming the damage caused by a brush fire in a closed-off area. The camera is directly above the center of the closed-off area.

a. A person is standing 100 feet away from the center of the closed-off area. The angle of depression from the camera to the person flying the kite is  $25^\circ$ . How long is the string on the kite?

11. A boat is pulled in by a winch on a dock 12 feet above the deck of the boat. When the winch is fully extended to 25 feet, what is the angle of elevation from the boat to the winch?

