# Review Practice with Trig and Angles of Elevation/Depression

Do all the questions on this review/summary of trig. Keep it in a safe place and in tomorrow's video, I am going to over the solutions and post the solutions as well for you to make corrections before you take the Quizizz for Thursday.

(1) The diagram below shows a 9.5 foot tall sunflower. Find the angle of elevation of a little girl standing 5 ft away from the base of the sunflower looking to the top of the flower.
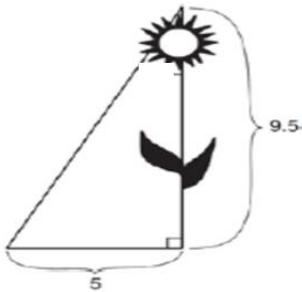

(2) Find the length of a shadow that a 28 meter tall tree casts if the angle of depression of bird looking at the end of the shadow is 41.2 degrees.

(3) A spotlight is mounted on a wall 7.4 ft above a security desk in an office building. It is used to light an entrance door 9.3ft from the desk. Find the angle of depression from the spotlight to the entrance door.

(4) A large totem pole near Kalama, Washington, is 193ft tall. On a particular day at noon it casts a 231 ft shadow. What is the sun's angle of elevation at that time to the nearest tenth?

(5) In the diagram of right triangle ABC shown below, AB = 14 and AC = 9. What is the measure of angle A to the nearest degree?
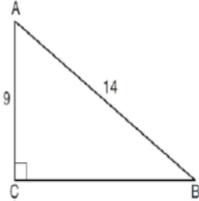

(6) A ladder leans against a building and reaches a window 10 feet above the ground. If Kenny is looking out of the window at Julie at the bottom of the ladder at an angle of depression of 56.44 degrees, what is the length of the ladder to the nearest integer?

(7) The center pole of a tent is 8 feet long, and a side of the tent is 12 feet long as shown in the diagram below. If a right angle is formed where the center pole meets the ground, what is the measure of angle A to the nearest degree? What is the total length of the bottom of the tent, AB, to the nearest foot?
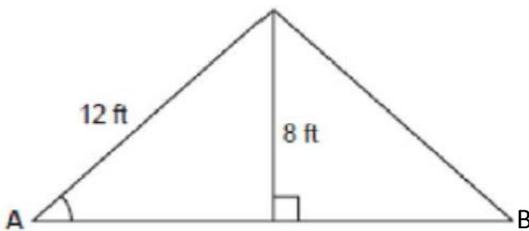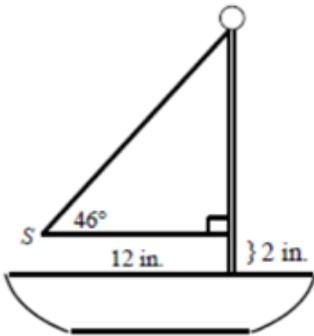

(8) Compare the value of x to the value of y. Which is true?
$\quad$ (a) x > y $\qquad$ (b) x < y $\qquad$ (c) x = y
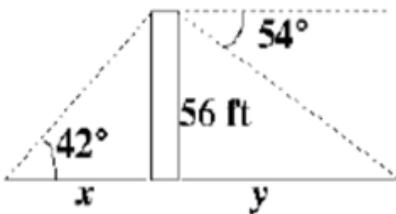
(9) You are building a model sailboat. The mast will have two inches of height below the base of the main sail. You want the base of the sail to have a length of 12 in. If you require the angle S in the sail to be 46 degrees, what will be the height of the mast to the nearest tenth of an inch?

(10) A lighthouse is built on the edge of a cliff near the ocean, as shown in the diagram. From a boat located 200 feet from the base of the cliff, the angle of elevation to the top of the cliff is 18 degrees and the angle of elevation to the top of the lighthouse is 28 degrees. What is the height of the lighthouse, x, to the nearest tenth of a foot? (Take note: There are 2 right triangles, the ones I outlined in red and green. Use them both to problem solve)
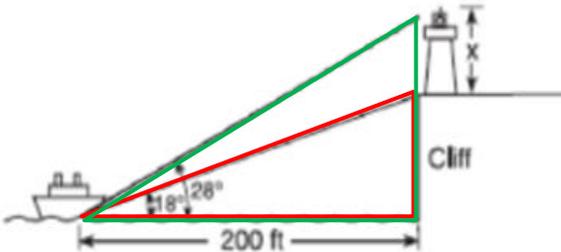
(11) The map of a campground is shown below. Campsite C, first aid station F and supply station S lie along a straight path. The path from the supply station to the tower, T, is perpendicular to the path from the supply station to the campsite. The length of path FS is 400 feet. The angle formed by path TF and path FS is 72°. The angle formed by path TC and path CS is 55°. Determine to the nearest foot, the distance from the campsite to the tower.

(Take note: There are 2 right triangles, the ones I outlined in red and green. Use them both to problem solve)

Campground Map