

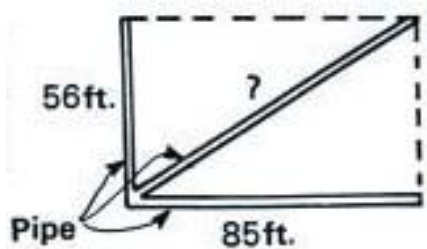
Name: _____ Class: _____

Applications of the Pythagorean Theorem

1. If the legs of an isosceles right triangle are 6 units long, find the length of the hypotenuse.

2. If the hypotenuse of an isosceles right triangle is 10 units long, find the length of the legs.

3. Eva Lewis wants to put an underground sprinkler system in her back yard. A drawing of the system is shown below. About how many feet of water pipe will Eva need?



4. Jackson is 54 miles west of the Lazy R Resort. Ontario is 31 miles south of Jackson. A land developer proposes building a shortcut road to directly connect Ontario and the Lazy R. Draw a picture and find the length of the proposed new road.

5. A television screen measures approximately 15.5 in. high and 19.5 in. wide. A television is advertised by giving the approximate length of the diagonal of its screen. How should this television be advertised?

6. A 12-ft ladder is placed against a wall with its base 3 ft from the wall. How high above the ground is the top of the ladder?