

Applications of the Pythagorean Theorem:

(SHOW ALL WORK AND CIRCLE ALL YOUR FINAL ANSWERS)

1. **Draw a diagram and solve the following problem. Approximate your answer to the nearest tenths place:**

Two telephone poles are 75 feet apart and the poles are each 50 feet tall. What is the distance from the base of one pole to the top of the other pole (in feet)?

2. **Draw a diagram and solve the following problem. Approximate to the nearest tenths place.**

You need to construct a ramp to roll a cart from your garage into the back of your truck. The truck is 8 feet from the garage. The back of the truck is 36 inches above the ground. How long does the ramp have to be (in feet)?

3. **Draw a diagram and leave your answer in simplest radical form.**

A boy, 75 feet away from a building, is looking up at a bird who is sitting on the top of it. The building is 60 feet tall. If the boy could draw a straight line from himself to the bird, how far away from the bird is he (in feet)?

4. **Draw the following and leave your answer in simplest radical form:**

A right triangle has the following sides:

A = 1 meter

B = ?

C = 300 centimeters

What is the length of "B", in meters?

5. **Write and solve a question that shows how you might use the Pythagorean Theorem on a real situation.**

NOTE:

- Total of 4 points on sheet with correct answers and work shown
- Total of 3 points on sheet with correct answers, but missing work
- Total of 2 points on sheet with some correct answers and complete work
- Total of 1 point on sheet if there are bits and pieces and they are correct