## Lesson 2.5 ~ Applying the Pythagorean Theorem

Name_____ Period_____ Date_____

**Draw a diagram and solve for the missing measure. Round to the nearest tenth.**

1. A car travels 60 miles due north then makes a turn due west. It travels 72 miles west. How far is the car from its starting point?

2. Michelle delivers books to school libraries. Her truck has a slide out ramp for unloading the books. The top of the ramp is 3 feet above the ground. The ramp itself is 5.2 feet long. What is the horizontal distance the ramp reaches?

3. Pete has a 15-foot ladder. The safety instructions recommend he should have the base of the ladder 6 feet from the base of the wall he will lean the ladder against. How high will the ladder reach on the wall?

4. A local businessman bought a square plot of land. The sides of the lot measure 32 feet on each side. He decides to split the lot into two equal-sized right triangles by putting a fence down the diagonal. Approximately how many feet of fencing will he need?

5. A rectangular prism is 5 inches long, 8 inches wide and 10 inches tall. What is the length of its longest diagonal?

6. Chris is mailing his friend a poster that has been rolled up in a long tube. He has a box that measures 20 inches by 8 inches by 4 inches. What is the maximum length the rolled poster can be?