

<p>5. ART Anna is building a rectangular picture frame. If the sides of the frame are 20 inches by 30 inches, what should the diagonal measure? Round to the nearest tenth of an inch.</p>	<p>4. GEOMETRY What is the perimeter of a right triangle if the hypotenuse is 15 centimeters and one of the legs is 9 centimeters?</p>
<p>7. CONSTRUCTION A door frame is 80 inches tall and 36 inches wide. What is the length of a diagonal of the door frame? Round to the nearest tenth of an inch.</p>	<p>6. CONSTRUCTION A 20-foot ladder leaning against a wall is used to reach a window that is 17 feet above the ground. How far from the wall is the bottom of the ladder? Round to the nearest tenth of a foot.</p> <p>8. TRAVEL Tina measures the distances between three cities on a map. The distances between the three cities are 45 miles, 56 miles, and 72 miles. Do the positions of the three cities form a right triangle?</p>

3-6**Word Problem Practice****Using the Pythagorean Theorem**

1. RECREATION A pool table is 8 feet long and 4 feet wide. How far is it from one corner pocket to the diagonally opposite corner pocket? Round to the nearest tenth.

2. TRIATHLON The course for a local triathlon has the shape of a right triangle. The legs of the triangle consist of a 4-mile swim and a 10-mile run. The hypotenuse of the triangle is the biking portion of the event. How far is the biking part of the triathlon? Round to the nearest tenth if necessary.

3. LADDER A ladder 17 feet long is leaning against a wall. The bottom of the ladder is 8 feet from the base of the wall. How far up the wall is the top of the ladder? Round to the nearest tenth if necessary.

4. TRAVEL Tara drives due north for 22 miles then east for 11 miles. How far is Tara from her starting point? Round to the nearest tenth if necessary.

5. FLAGPOLE A wire 30 feet long is stretched from the top of a flagpole to the ground at a point 15 feet from the base of the pole. How high is the flagpole? Round to the nearest tenth if necessary.

6. ENTERTAINMENT Isaac's television is 25 inches wide and 18 inches high. What is the diagonal size of Isaac's television? Round to the nearest tenth if necessary.