

Name: _____ Teacher: _____ School: _____

Grade 8: Lesson 17 The Converse of the Pythagorean Theorem

Complete the following exercises. You may use a calculator as needed.

Tell whether each triangle with the given side lengths is a right triangle. In problems 1-4, if any of the triangles do form right triangles, determine if the side measures are also Pythagorean Triples.

1. 11 cm, 60 cm, 61 cm

2. 5 ft., 12 ft., 15 ft.

3. 20 mm, 30 mm, 40 mm

4. 2 mi., 1.5 mi., 2.5 mi.

5. The emblem on a school banner consists of the face of a tiger inside a triangle. The lengths of the sides of the triangle are 13 cm, 14 cm, and 15 cm. Is the triangle a right triangle? Explain.

6. Kerry has a large triangular piece of fabric that will go on the ceiling in a bedroom. The sides of the fabric measures 4.8 ft., 6.4 ft., and 8 ft. Is the fabric in the shape of a right triangle? Explain.

7. In ancient Egypt, surveyors made right angles by stretching a rope with evenly spaced knots as shows. Explain why the rope forms a right triangle.

