

Practice Test – Right Triangles

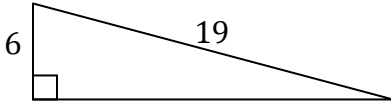
Geometry

Name: _____

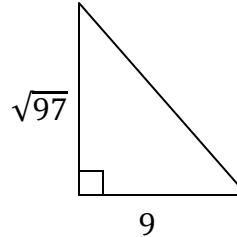
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1. Find the length of each side of the right triangle. Leave your answers in simplest radical form.

a.



b.



2. State if the set is a Pythagorean Triple. If the set is a Pythagorean Triple, tell what makes it a Pythagorean Triple. If not, tell what characteristic it is missing.

a. 1.6, 3, 3.4

b. 9, 12, 14

c. 24, 45, 51

3. Determine what, if any, type of triangle is represented by the given side lengths.

a. 7, 24, 25

b. 6, 8, 10

c. 5, 7, 13

d. 4, 6, 9

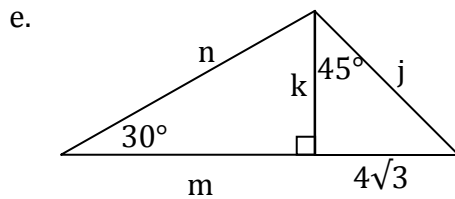
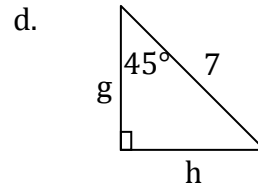
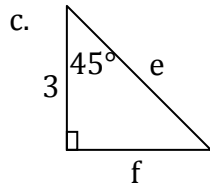
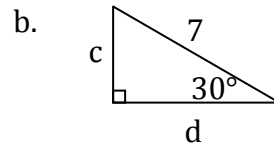
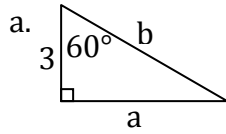
4. Draw a diagram to represent each of the following situations.

a) On a playground, the bottom of a 14 foot slide is placed 12 feet from the base of the ladder. What is the height of the ladder?

b) A wheelchair ramp is constructed with a height of 5 feet and a length of 16 feet. What is the length of the ramp?

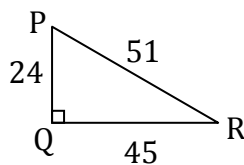
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5. Find the length of each side of the triangle. Leave your answer in simplest radical form.

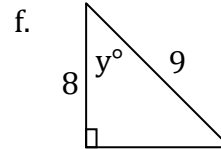
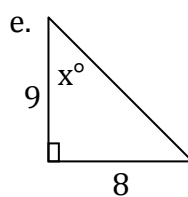
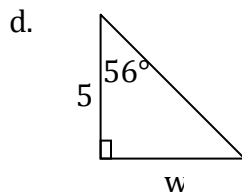
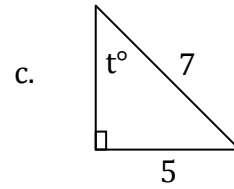
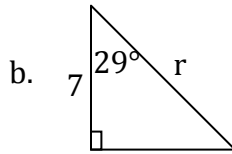
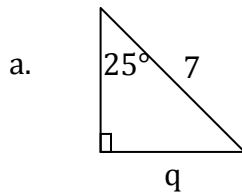


6. On a Tee-Ball baseball field in Anytown, the distance between 1st and 2nd base is 50 feet. What is the distance from 3rd base to 1st base? Give the answer in both simplest radical form and to the nearest tenth.

7. Write the ratios for Sin P, Cos P, and Tan P.



8. Find the missing side lengths and angle measures. Round angle measures to the nearest degree and side lengths to the nearest tenth. Triangles are not drawn to scale.



9. A wheelchair ramp rises at an angle of 10° . The door to the building is 3 feet above the ground. What is the length of the base of the ramp?

10. A guide wire needs to be placed 7 feet from the base of the telephone pole. The angle of elevation to the top of the pole is 70° . What is the length of the guide wire?

11. A rhombus has diagonals with lengths 13 and 9. What are the measures of the angles of the rhombus (round to the nearest degree)?