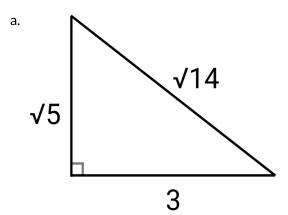
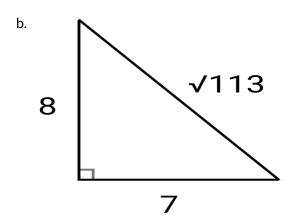
Name:	 Date:	

- 1. The side lengths of 3 different right triangles are listed below. For each triangle, determine which measure is the hypotenuse of the triangle.
  - a. Triangle A:  $6\,\mbox{cm}, 10\,\mbox{cm}, 8\,\mbox{cm}$
  - b. Triangle B:  $\sqrt{61}$  in, 6 in, 5 in
  - c. Triangle C:  $4 \text{ m}, 8 \text{ m}, \sqrt{48} \text{ m}$

2. Use the Pythagorean theorem to show that the triangles below are right triangles.



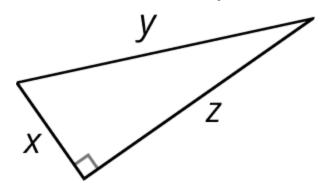


- 3. The lengths of the three sides are given for several right triangles. For each, write an equation that expresses the relationship between the lengths of the three sides.
  - a. 10, 6, 8

- b.  $\sqrt{8}, \sqrt{5}, \sqrt{3}$
- c.  $5, \sqrt{5}, \sqrt{30}$
- d.  $1, \sqrt{37}, 6$

e.  $3, \sqrt{2}, \sqrt{7}$ 

4. Gina drew a right triangle and labeled the side lengths x, y, and z, as shown below.



Gina wrote the equation  $z^2=x^2+y^2$  to represent the relationship between the side lengths of the triangle. Did Gina write a correct equation? Explain why or why not.

5. For each set of numbers below, identify 3 measures that could be used to create a right triangle. Justify your selection.

a. 
$$2, 3, 4, 5$$

b. 
$$5, 10, 12, 13$$

c. 
$$3, \sqrt{27}, 6, 9$$

d. 
$$\sqrt{12}, 5, 6, \sqrt{37}$$