

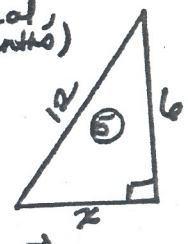
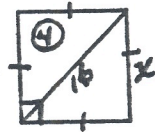
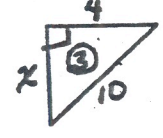
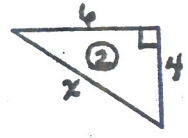
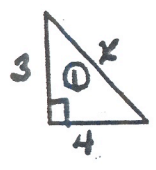
1. State the pythagorean theorem: If \_\_\_\_\_, then \_\_\_\_\_

2. Why do we use the pythagorean theorem?

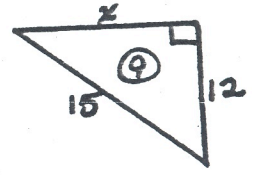
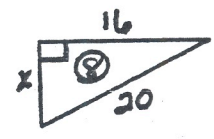
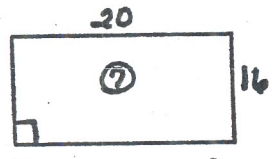
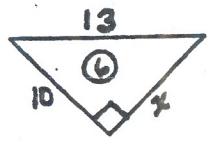
3. State the converse of the pythagorean theorem: If \_\_\_\_\_, then \_\_\_\_\_

4. Why do we use the converse of the pythagorean theorem?

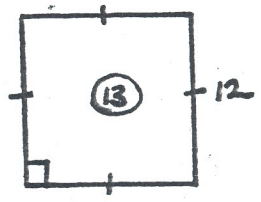
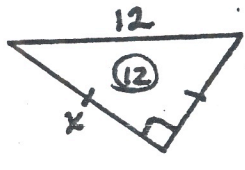
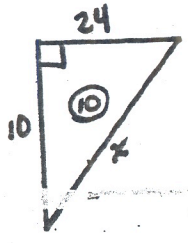
Find the missing side: Show your work. 2 answers  $\Rightarrow$  simplified radical, rounded (tenths)



- 1) \_\_\_\_\_, \_\_\_\_\_
- 2) \_\_\_\_\_, \_\_\_\_\_
- 3) \_\_\_\_\_, \_\_\_\_\_
- 4) \_\_\_\_\_, \_\_\_\_\_
- 5) \_\_\_\_\_, \_\_\_\_\_
- 6) \_\_\_\_\_, \_\_\_\_\_
- 7) \_\_\_\_\_, \_\_\_\_\_
- 8) \_\_\_\_\_, \_\_\_\_\_
- 9) \_\_\_\_\_, \_\_\_\_\_



find length of diagonal



13) find length of the diagonal

- 10) \_\_\_\_\_, \_\_\_\_\_
- 11) \_\_\_\_\_, \_\_\_\_\_
- 12) \_\_\_\_\_, \_\_\_\_\_

Determine if the following side measures can construct a right triangle: Show all work.

- 1. 5, 7, 3 cm
- 2. 6, 10, 8 in.
- 3. 25, 15, 20 cm.

Any acute triangles? \_\_\_\_\_ Obtuse triangles? \_\_\_\_\_

A student drew a rectangle with side measures 9 cm and 12 cm. Its diagonal has measure 16 cm. Is the figure truly a rectangle? Draw a picture and show your work to justify.