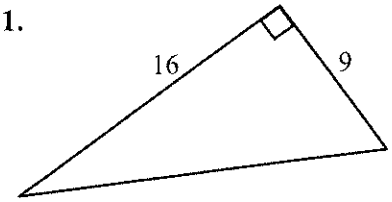
Lesson 2.3C ~ The Pythagorean Theorem

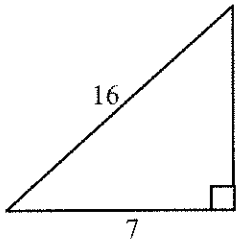
Name_____ Period_____ Date_____

Use the Pythagorean Theorem to find each unknown side. If needed, round to the nearest hundredth.

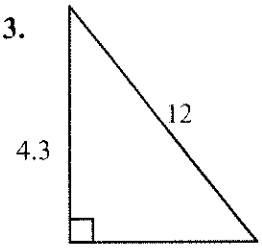
1.



2.



3.



4. A rectangular park is 4 *km* long and 2.4 *km* wide.

a. What is the distance if you walk diagonally across the park?

b. How much shorter is your walk compared to walking around the edge of the park?

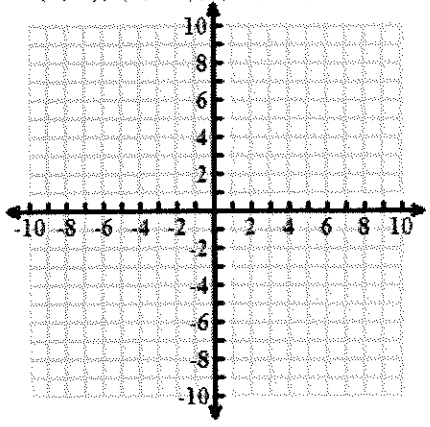
5. A 15-foot ladder leans against the side of a building. The bottom of the ladder is 4 feet from the base of the building. Find how far up the building the ladder will reach.

6. Find the amount of fence needed to enclose a rectangular lot. The diagonal of the lot is 28 yards and one side of the lot is 21 yards.

7. Two trains leave town at the same time. The first train travels west at 46 mph and the second train travels south at a rate of 68 mph. How far apart are the trains after 3 hours?

Plot each set of points and find the perimeter of each triangle. Round answers to the nearest hundredth.

8. (5, 3), (5, –6), (–1, –6)



9. (3, –2), (–9, –2) and (–9, 6)