Algebra 1A

Name_____

7.3-7.4 Pythagorean Theorem

Date_____ Period____

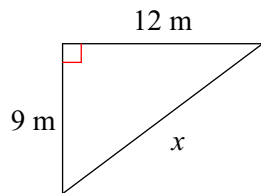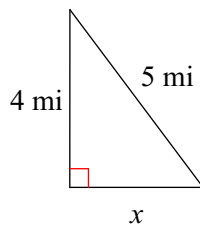**Find the missing side of each triangle. Round your answers to the nearest tenth if necessary. Show your work throught the entire worksheet.**
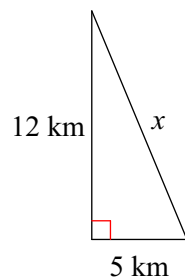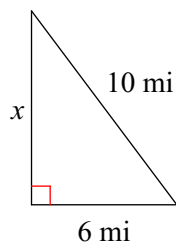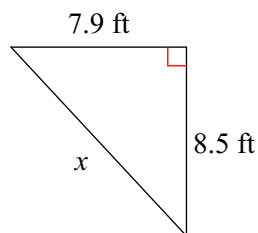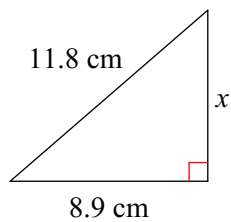
1)

12 m

9 m

x

2)

4 mi

5 mi

x

3)

12 km

x

5 km

4)

x

10 mi

6 mi

5)

7.9 ft

8.5 ft

x

6)

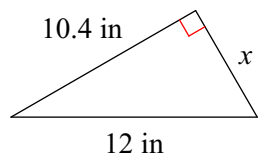11.8 cm

x

8.9 cm

7)

10.4 in

x

12 in

8)

8 m

x

8.2 m
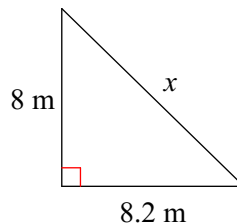
Find the missing side of each right triangle. Side *c* is the hypotenuse. Sides *a* and *b* are the legs. Round your answers to the nearest tenth if necessary.

9) $a = 5$ in, $b = 12$ in

10) $b = 8$ cm, $c = 10$ cm

11) $a = 4.4$ km, $c = 10.8$ km

12) $a = 8.1$ km, $b = 4.4$ km

State if the three sides lengths form a right triangle. Use work to explain your answer.

13) 4 ft, 4 ft, 5 ft

14) 5 m, 12 m, 13 m

15) 6 in, 8 in, 10 in

16) 3 ft, 12 ft, 13 ft

17) A bird is at the very top of a 35 foot tree. He spies a worm that is 50 feet from the base of the tree. Set up a right triangle picture to find the distance from the bird to the worm.

18) A wheelchair ramp is 39 feet long. The ramp covers a horizontal distance of 36 feet. What is the vertical height of the ramp? Set up a right triangle picture to solve for this height.