The Pythagorean Theorem Assignment

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class:\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_

Find the length of the missing side in the following examples. Round answers to the nearest tenth, if necessary. **Please do and show all work on a separate piece of loose leaf!**

**1.** **2.** **3.**

6cm *c* *c* 5 cm 2 m 5m

*c*

3 cm 12 cm

8cm

**4.**  **5.**  **6.**

2.4 m *c c*  10cm

5.2 m 30m *c*

3cm

5m

**7.**  **8**.

*c*

**9.**  22cm

7m *c* 50 15cm

40m  *c*

What is the length of the hypotenuse, c, of the following right angle triangles? **Show all work on a separate piece of loose leaf!**

10. a = 3 ; b = 4 ; c = ?

11. a = 6 ; b = 8 ; c = ?

12. a = 12 ; b = 5 ; c = ?

13. a = 9 ; b = 12 ; c = ?

14. a = 15 ; b = 20 ; c = ?

15. a = 8 ; b = 10 ; c = ?

16. a = 15 ; b = 17 ; c = ?

17. a = 40 ; b = 50 ; c = ?

18. a = 4 ; b = 2 ; c = ?

19. a = 1.2 ; b =­­­­­­­­­ 3.5; c = ?

20. A ladder is leaning against the side of a 10m house. If the base of the ladder is 3m away from the house, how tall is the ladder? **Please draw a diagram and show all work**.