Pythagorean Theorem WORD PROBLEMS HW

**Directions:** Solve each word problem in your spiral. Be sure to draw a picture, label your triangle, show all of your work and label your answer. Please write you answer to nearest tenth.

1. Find the diagonal of a rectangle, which is 4 feet by 5 feet.

2. If you travel 3 miles due north and then 6 miles west how far are you in a straight line from your starting point?

3. If 6 feet of a post is above ground how far is the top of the post from a point 5 feet away from the foot of the post?

4. What is the longest straight line that can be drawn on a floor, which is 10 meters, by 4 meters?

5. If the diagonal of a rectangular field is 20 meters, and the length is 16 meters, how wide is the field?

6. If a ladder 8 feet long is placed so that it just reaches a window 6 feet from the ground, how far from the building is the foot of the ladder?

7. If you travel 5 mi east and then 3 mi south, how far are you from your starting point?

8. A phone company braces a pole 30 ft high by placing another pole 14 ft away from the foot of the first pole reaching to within 3 ft of its top. How long must the bracing pole be?