Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour: \_\_\_\_\_\_\_\_\_

HW: Pythagorean Theorem 3

Using what you know about right triangles, solve the following problems. Round your answers to the nearest hundredth. SHOW ALL WORK!

1. Find a third number that would form a right triangle
   1. 9, 41
   2. 13, 85
2. Ms. Weiss tells you that a right triangle has a hypotenuse of 13 and a leg of 5. She asks you to find the other leg of the triangle. What is your answer?
3. Two joggers run 8 miles north and then 5 miles west. What is the shortest distance, to the *nearest hundredth* of a mile, they must travel to return to their starting point?
4. Oscar’s dog house is shaped like a tent. The slanted sides are both 5 feet long and the bottom of the house is 6 feet across. What is the height of his dog house, in feet, at its tallest point?
5. To get from point A to point B, you must avoid walking through a pond. To avoid the pond, you must walk 34 yards south and 41 yards east. To the nearest yard, how many yards would be saved if it were possible to walk through the pond?
6. A suitcase measures 24 inches long and the diagonal is 30 inches long. How much material is needed to cover one side of the suitcase?