Pythagorean Theorem Picture Problems

1. A suitcase measures 24 in long and 18 in high. What is the diagonal length of the suitcase to the nearest tenth of an inch?

2. A DVD case measures 4 in long and 9 in high. What is the diagonal length of the DVD case to the nearest tenth of an inch?

3. Ms. Easty wants to buy a new flat screen TV. She is looking at buying a 46 inch TV. This measurement is the diagonal across the TV. If it is 25 inches tall, how long will the TV be to the nearest tenth of an inch?

4. A baseball diamond is a square with sides of 90 ft. What is the shortest distance, to the nearest tenth of a foot, between first and third base?

5. According to a TV ad, a new computer monitor is listed as being 19 inches. This measurement is the diagonal distance across the screen. If the screen measures 10 inches in height, what is the actual width of the screen to the nearest inch?

6. You are standing on one side of a lake and you want to get to your friends who are standing on the opposite corner of the lake. Unfortunately you must avoid walking through the lake. In order to avoid walking through the lake you must walk 34 meters south and 41 meters east. To the nearest meter, how many meters would it have taken to walk during through the lake?

7. Sam's dog house is shaped like a tent. The slanted sides are both 5 ft long and the bottom of the house is 6ft across. What is the height of his dog house in feet, at its tallest point?

8. In order to get to Ms. Easty's house from Ms. Skipper's house you must travel 8 miles north and then 5 miles west. If you could travel straight to Ms. Skipper's house from Ms. Easty's house, how far would it be?