1. Scott wants to swim across a river that is 400 meters wide. He begins swimming perpendicular to the shore that he started swimming from but ends up 100 meters down river from where he started due to the current. How far did he swim from the starting point?

2. Two joggers run 8 miles north then 4 miles east. What is the shortest distance, to the tenth, that they must travel to return to the starting point?

3. Oscar's dog house is shaped like a tent. The slanted sides are both 5 foot long and the bottom of the house is 6 feet long. What is the height of the dog house at its tallest point?

4. A television screen measures approximately 15 inches high and 19 inches wide. A television is advertised by giving the approximate length of the diagonal of its screen. How should this television be advertised?

5. Jackson is 54 miles east from Lazy R Resort. Ontario is 31 miles south of Jackson. A land developer proposes building a shortcut road to directly connect Ontario and Lazy R. Find the length of this new road.

6. Adel is 9 miles north from Cecil, and 12 miles from west of Nashville. A road is to be constructed to connect the towns Cecil and Nashville directly. Find the length of this road.

7. Sal's monitor has a diagonal of 10 with a width of 6. What is the length of his monitor?

8. Paul is making his wife a greenhouse to store her plants for the winter. The length of the front of the greenhouse is 12 feet with a height of 8 feet. To stable the framework he must attach a board that reaches from the top right corner to the bottom left corner. How long will the board need to be?

**Baseball**

Jerry said that the distance from home plate to second base was the same distance as running from home plate to first base. Is he correct? If not, what is the difference?

**Ladders**

You're locked out of your house and the only open window is on the second floor, 25 feet above the ground. You need to borrow a ladder from one of your neighbors. There's a bush along the edge of the house, so you'll have to place the ladder 10 feet from the house. What length of ladder do you need to reach the window?