Suppose you throw a ball from the observation deck on the roof of the Science Center.

1. If you throw the ball straight up, how high above the ground will in go? When will the ball hit the ground?
   (Assume that it drifts over the edge of the observation deck)

2. If you throw the ball at a $45°$ angle with the horizontal, how high will it go? How far does it travel horizontally?

3. If you throw the ball at a $44°$ angle with the horizontal, how high will it go? How far does it travel horizontally?