PreAP Due 10/11

1. A cannonball is fired at 40 m/s at 50° to the horizon. How far away will the cannonball will travel from where it was shot (its range)?

2. A person throws a ball from a 15 m tall roof at 12 m/s at 25°.
    A. Find the range of the ball.   (You may need to do a bit more to find t.)

    B. Find the actual velocity (magnitude and direction) of the ball when it hits the ground.

3. A baseball player hits a ball at 36° and 25 m/s.   If the ball is hit 1.5 meters above the ground,
    A. Find how high the ball went (from the ground).

    B. Find the velocity (magnitude and direction) of the ball at t = 2seconds.

4. A ball is moving 10 m/s as it rolls off of a 2.5 m tall table.
    A. How far away from the table does it land?

    B. A second ball is dropped from the table. If they both leave the table at the same time, which one hits the ground first?

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