

NAME _____

PERIOD _____

PHYSICS HOMEWORK QUIZ #3 D

UNIFORM ACCELERATION

You are on top of a building, which is 186.0 meters high, when you throw a ball downward with a speed of 18.0 m/sec.

1. How long will it take for this ball to reach the ground? [3 pts]

2. What will be the velocity of this ball just as it reaches the ground? [3 pts]

3. What was the average velocity of the ball from the time it was thrown until it reached the ground? [3 pts]

Suppose, instead, that at the same moment that this ball was thrown downward from the roof, a second ball was thrown upward from the ground with a speed of 32.0 m/sec.

4. How long after these balls were thrown did they collide in midair? [3 pts]

5. At what height above the ground did these two balls collide? [3 pts]