

1. A ball is thrown at 33.3 m/s at an angle of 75.5° from the ground. How high off the ground is the ball after 6.00 s?

Answer _____

2. A kicker wants to kick a 45.7 m (50 yd) field goal. The crossbar of the upright is 3.05 m above the ground. The kicker can kick with a velocity of 22.4 m/s (50 mph). The ball is kicked at an angle of 50.0° above the ground. Assuming the ball is kicked straight is the field goal good. Show proof.

Answer _____

3. A ball is kicked at 30.0 m/s at an angle of 65.0° above the ground. How long has the ball been in the air when the velocity of the ball is pointing down and has a magnitude of 15.0 m/s?

Answer_____

4. A bullet is fired at 200. m/s at an angle of 56.7° . At what angle is the bullet moving when it is 100. m above the ground?

Answer_____

- **5. Jane is standing on top of a 50.0 m high building. She throws a ball at 20.0 m/s at an angle of 30.0° above the horizontal. If she was standing on the edge of the building when she threw the ball, how far from the base of the building does the ball hit the ground?

Answer_____