

Practice Problem Set 2

Question 1 (1 point)

What is the difference between velocity and acceleration?

Questions 2-4 involve Hank Huckleberry, who is the quarterback for the Kennesaw Kilowatts in the Metro Metric Football League. In this league all distances on the field are measured in meters.

Question 2 (3 points)

Hank throws the ball with an initial velocity of 12 m/s at an angle which is 35 degrees up from north. He releases the ball from a height of 1.6 m above the field. How far north does the ball travel before it lands on the field?

Question 3 (3 points)

Hank throws the ball with an initial velocity of 16 m/s at an angle which is 48 degrees up from north. He releases the ball from a height of 1.8 m. How long does it take from the time of the throw until it lands?

Question 4 (3 points)

Hank throws the ball in exactly the same situation as question 2, except that now there is a wind moving to the west at 4.6 m/s. What is the final speed of the ball when it lands?