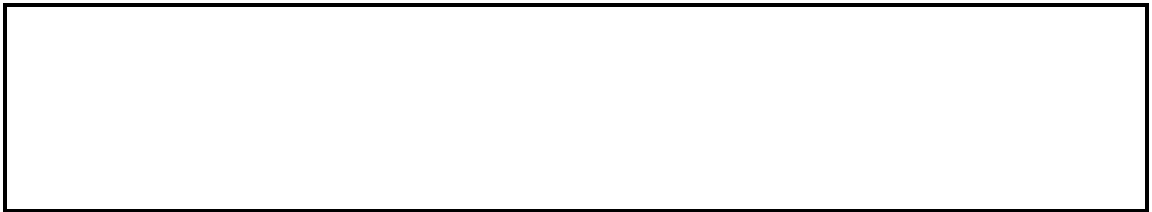


Problem #1 (12 Points)

Joseph Fourier tosses a stone of mass of 0.430kg with a speed of $26.8 \frac{\text{m}}{\text{s}}$ at an angle of 18.3° degrees above the horizontal towards a wall that is 30.5m away.

Question 1 (3 Points)

Create and draw a well labeled diagram of the situation. Be sure to include all known and unknown quantities.



Question 2 (3 Points)

Resolve the initial velocity into x and y components:



Question 3 (3 Points)

What is the time taken for the stone to hit the wall?



Question 4 (3 Points)

What is the height of the stone when it hits the wall?



Problem #2 (3 Points)

Quinn accelerates at a rate of $2.45 \frac{\text{blarks}}{\text{zoomer}}$?

Question 1 (3 Points)

Determine Quinn's acceleration in ($\frac{\text{m}}{\text{s}}$).