

Proposed Problem

2D motion
CRP #26

- Create Useful description - sketch, graphs, define quantities, define problem
- Physics Approach - list physics concepts that would apply to this problem
- Specific Application of Physics - use the concepts to model mathematically model the problem
- Mathematical Procedures - use the equations to solve the problem

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Physics Problem Solving SheetUseful Description

Picture & Given Information:

Y	Const. acc	Const vel.
Δy =	Δx =	X
$v_{iy} = 0 \frac{m}{s}$	$v_{ix} =$	
$v_{fy} =$		
a		
	Δt =	

Question:

How far away will the bullet land?

Target Quantity:

Δx

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Physics Problem Solving Sheet (cont.)Physics Approach

Physics Concepts and/or Principles:

*see last slide*Specific Application of Physics

Assumptions/ Constraints:

no air res.

Specific Equations:

$$v_x = \frac{\Delta x}{\sqrt{\frac{2\Delta y}{-9.8 \frac{m}{s^2}}}} =$$

Mathematical Procedures

Employ specific equations to solve for target quantity.

$$\Delta x = v_x \sqrt{\frac{2\Delta y}{-9.8 \frac{m}{s^2}}}$$

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