Proposed Problem

2D motion

CRP #27

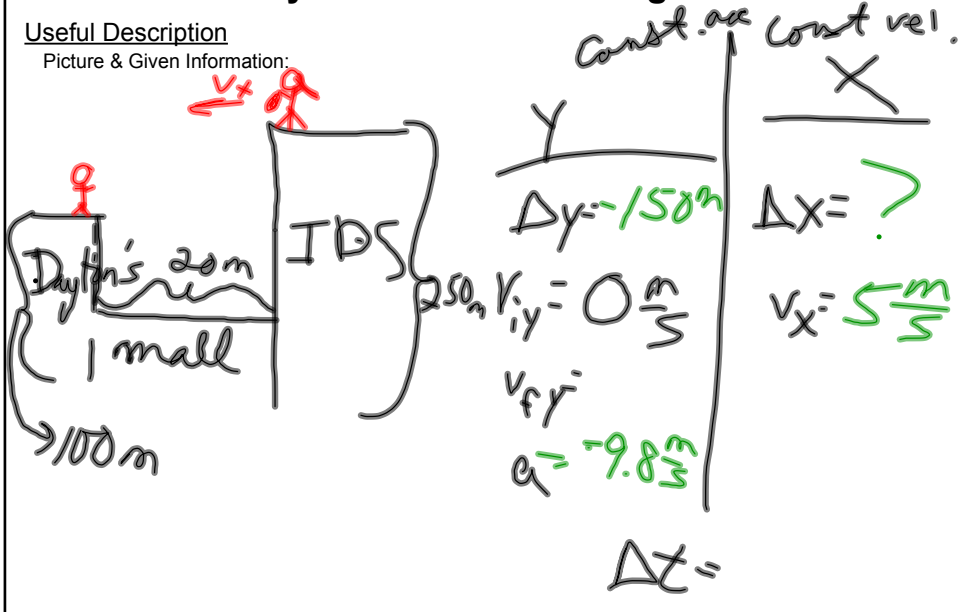
- Create Useful description - sketch, graphs, define quantities, define problem
- Physics Approach - list physics concepts that would apply to this problem
- Specific Application of Physics - use the concepts to model mathematically model the problem
- Mathematical Procedures - use the equations to solve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

Aug 5-9:52 AM

Physics Problem Solving Sheet

Useful Description

Picture & Given Information:



Question: Could she make the throw @ 5 m/s?

Target Quantiy: Δx

Jul 26-9:35 PM

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:

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

Mathematical Procedures

Employ specific equations to solve for target quantity.

$$\Delta x = v_x \sqrt{\frac{2\Delta y}{-9.8\ m/s^2}} = 5\ m/s \sqrt{\frac{2(-15\ m)}{-9.8\ m/s^2}}$$

$\Delta x = 27.7\ m.$

She could definitely make the toss.

Jul 26-9:49 PM