Proposed Problem

1D motion
CRP #16

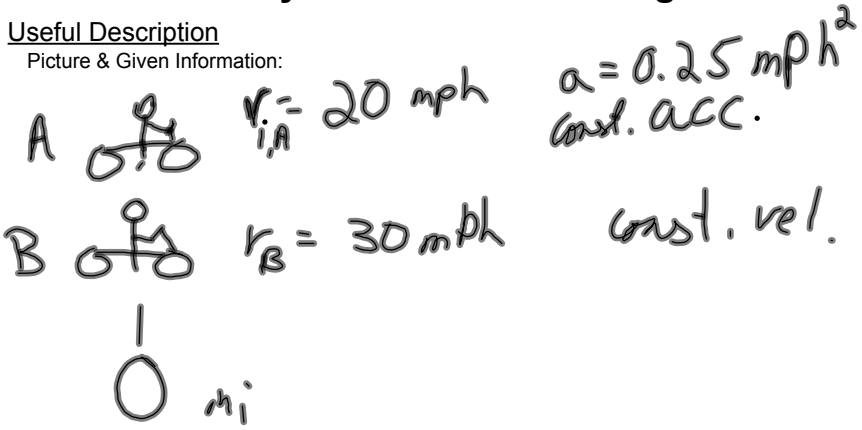
- Create Useful description - sketch, graphs, define quantities, define problem
- Physics Approach - list physics concepts that would apply to this problem
- Specific Application of Physics - use the concepts to model mathematically model the problem
- Mathematical Procedures - use the equations to solve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

Aug 5-9:52 AM

Physics Problem Solving Sheet

Useful Description

Picture & Given Information:



Question: When will you pass her?

Δx

Target Quantiy:

Jul 26-9:35 PM

Physics Problem Solving Sheet (cont.)

Physics Approach

Physics Concepts and/or Principles:

See prev.

Specific Application of Physics

Assumptions/ Constraints:

ignore air res.

Specific Equations:

Const vel: $V = \frac{\Delta X}{\Delta t}$

Const acc: $\Delta X = \frac{1}{2} a t^2 + v_i t$

Mathematical Procedures

Employ specific equations to solve for target quantity.

$X_f - X_i = \frac{1}{2} a t^2 + v_i \cdot t$

$X_f = \frac{1}{2} a t^2 + v_i t + X_i$

$Y = \frac{1}{2}\left(0.25 \frac{m}{s^2}\right) t^2 + (20\ mph) t + 0$

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