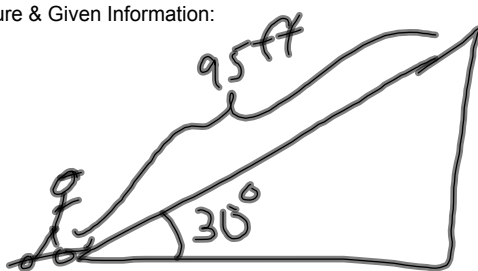## Proposed Problem

1D motion

CRP #13

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

Aug 5-9:52 AM

Physics Problem Solving Sheet

<u>Useful Description</u>
Picture & Given Information:

95 ft

30°

$\Delta x = 95 \, ft$

$\Delta t = 6 S$

$v_i = X$

$a = ?$

$v_f = 0 \frac{ft}{S^2}$

Question: How fast is he slowing down?

Target Quantiy: a

Jul 26-9:35 PM

Physics Problem Solving Sheet (cont.)

<u>Physics Approach</u>

Physics Concepts and/or Principles:

Const acc.

<u>Specific Application of Physics</u>

Assumptions/ Constraints:

ignore air res.

Specific Equations:

$$\Delta x = v_f t - \frac{1}{2} a t^2$$

<u>Mathematical Procedures</u>

Employ specific equations to solve for target quantity.

$$\Delta x = v_f t - \frac{1}{2} a t^2$$

$$95 ft = \cancel{0 \frac{m}{s} (6s)} - \frac{1}{2} a (6s)^2$$

$$95 ft = \qquad -18 s^2 (a)$$

$$\boxed{-5.3 \frac{m}{s^2} = a}$$

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