SW ① Q ⑨

Student Life Disability Services
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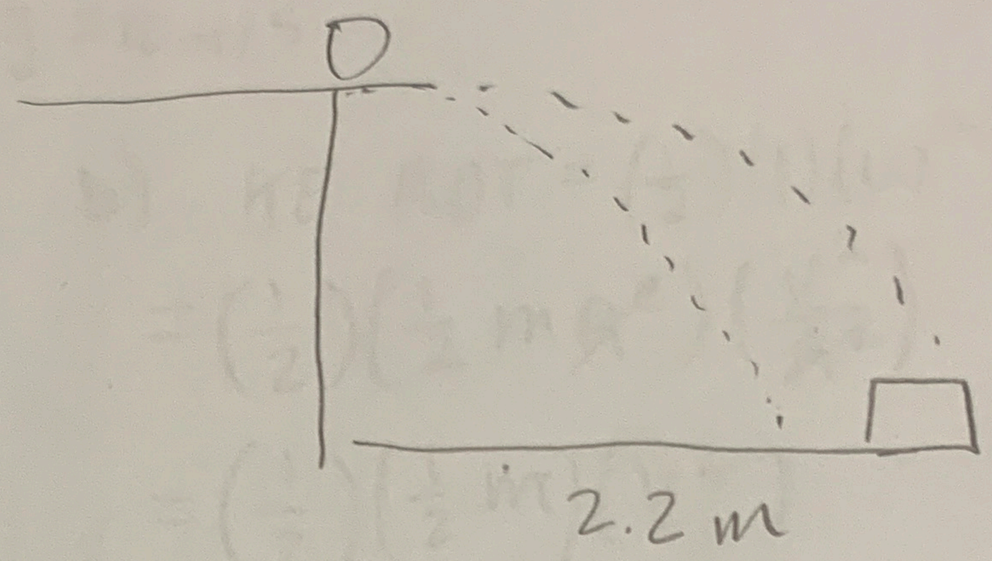
113 West 12th Ave.
Columbus, OH 43210

$mgh_1 = \frac{1}{2}mv_1^2 \rightarrow v_1 = \sqrt{2gh_1}$

$mgh_2 = \frac{1}{2}mv_2^2 \rightarrow v_2 = \sqrt{2gh_2}$



$d_1 = v_1 \cdot t$

$d_2 = v_2 \cdot t$

$\frac{d_1}{d_2} = \frac{v_1}{v_2}$

$\frac{1.93}{2.2} = \frac{\sqrt{2gh_1}}{\sqrt{2gh_2}}$

$\frac{1.93}{2.2} = \frac{\sqrt{h_1}}{\sqrt{h_2}}$

$\frac{1.93}{2.2} = \frac{\sqrt{0.011}}{\sqrt{h_2}}$

$d_1 = 1.93m \quad h_1 = 0.011$

$d_2 = 2.2m \quad h_2 = ?$

$\sqrt{h_2} = 0.1196 \rightarrow h_2 = 0.0143m = 1.43cm$

Rhonda should compress the spring 1.43 cm.