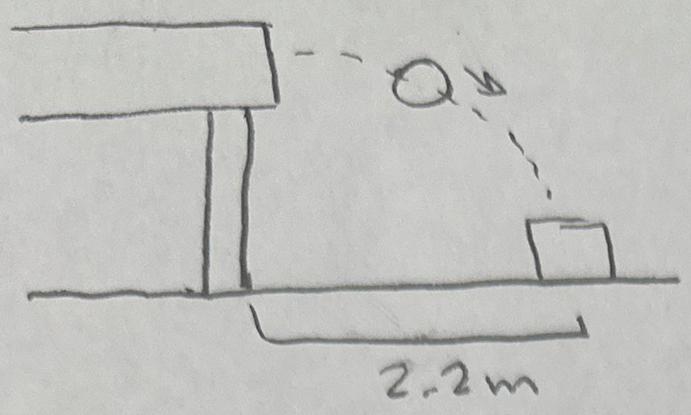
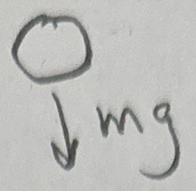
Jackson Kastelic

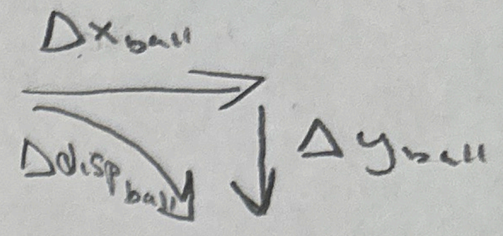
#9



$U_s = \frac{1}{2}kx^2$

$F_s = -k\Delta x$





1.1 cm → 0.011 m
27 cm → 0.27 m

$$\begin{array}{r} 2.2 \\ -\ .27 \\ \hline 1.93 \end{array}$$

So, if k → Δx

$k = .011\text{ m} \rightarrow 1.93\text{ m}$

$\frac{k_1}{\Delta x_1} = \frac{k_2}{\Delta x_2} \rightarrow 2.2\text{ m}$

$\frac{.011}{1.93} = \frac{k_2}{2.2}$

$.0057 = \frac{k}{2.2}$

$0.0125 = k$

↳ 1.25 cm to cm

So, to reach 2.2 m,

Compress by 1.25 cm