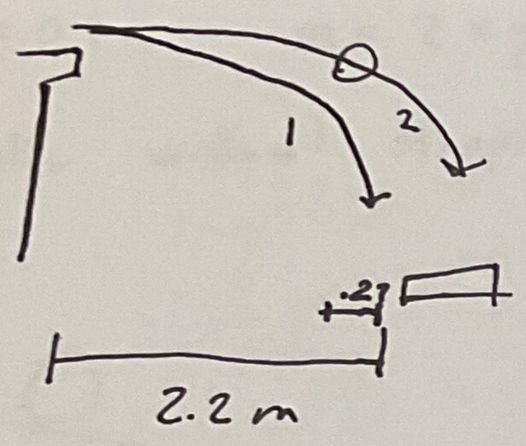
SW 1 Charan Nandur:

S

R

F



$\Delta x = 2.2\,m$ $\Delta x_{spring} = 1.1\,cm = 0.011\,m$

short .27m

no friction $g = 10$

$U_s = \frac{1}{2}kx^2$ 2.2

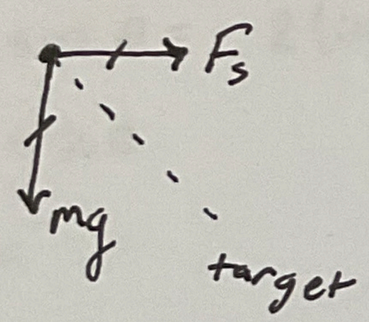
$\Delta x_1 = 2.2 - .27 = 1.93$

$\left(\frac{2.2}{1.93}\right)1.1 = 1.26\,cm$

$U_s = \frac{1}{2}k(1.93)^2$

$\frac{1}{2}k(3.73)$

$\Delta x =$



$\Delta y = V_{iy}\Delta t + \frac{1}{2}a\Delta t^2$

$F_y = mg$

$F_x = F_s = -k\Delta x$

$-k$

$k = \frac{0.011}{1.93} = \frac{0.057}{2}$

$\frac{1}{2}(\quad)(\quad)^2$

$F_x =$ $\quad = 0.13794 \times 10 = 1.3794$

$0.13794 = mg$

$= 6m(10)$ $\quad m = 0.013794\,kg$

Rhonda should compress the spring

1.26 cm