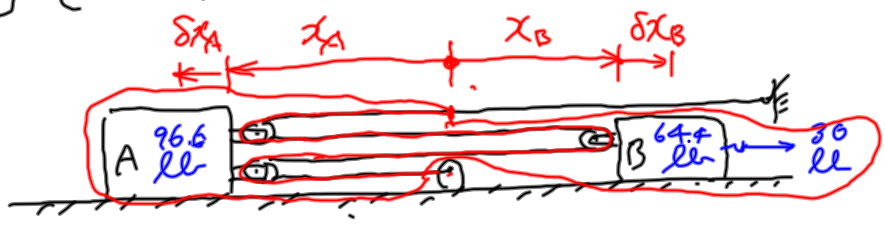
$\boxed{13.71}$ (12.21)

$\vec{a}_A = ?$ $\vec{a}_B = ?$

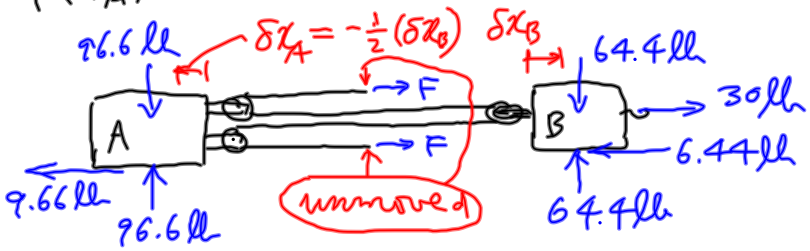
$F = ?$

$\mu_k = 0.1$



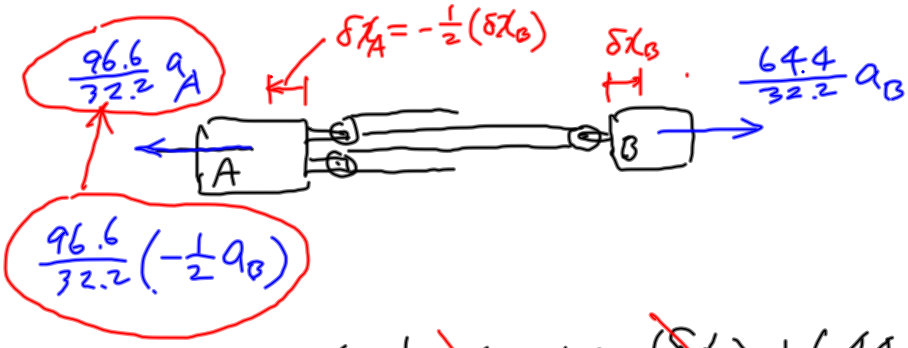
$4x_A + 2x_B = k$ $\quad$ $\boxed{4a_A + 2a_B = 0}$ $\quad$ $a_A = -\frac{1}{2}a_B$

$4(\delta x_A) + 2(\delta x_B) = 0$ $\quad$ $\delta x_A = -\frac{1}{2}(\delta x_B)$



FBD

||

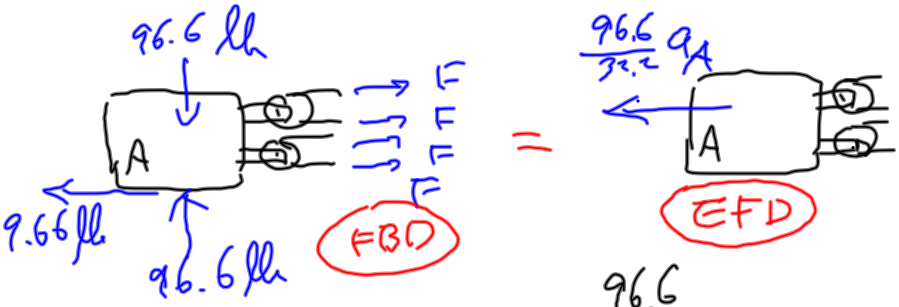


EFD

$$\delta U: \quad 9.66\left(-\tfrac{1}{2}\cancel{\delta x_B}\right) + 30\left(\cancel{\delta x_B}\right) + 6.44\left(-\cancel{\delta x_B}\right)$$

$$= \frac{96.6}{32.2}\left(-\tfrac{1}{2}a_B\right)\left(-\tfrac{1}{2}\cancel{\delta x_B}\right) + \frac{64.4}{32.2}a_B\left(\cancel{\delta x_B}\right)$$

$\therefore\ a_B = \square$ $\quad$ $a_A = -\square$ $\quad$ $\boxed{\vec{a}_B = \square\ ft/s^2 \rightarrow}$ $\quad$ $\boxed{\vec{a}_A = \square\ ft/s^2 \rightarrow}$



$\overset{+}{\leftarrow} \Sigma F_x: \quad 9.66 - 4F = \frac{96.6}{32.2}a_A \quad \therefore F = \square$ $\quad$ $\boxed{F = \square\ lb}$