

$$
\delta x_{c}=r \delta \theta=0.1 \delta \theta \quad \delta \theta=10 \delta x_{c}
$$

Applying principle of virtual work in kinetics, $\delta x_{c}$

$$
\begin{aligned}
& 0+[(50+20+15)(9.81)(5)]\left(\delta x_{2}\right)\left(\frac{7}{25}\right) \\
& =(50+20+15) v_{c}\left(\delta x_{a}\right)+\frac{1}{2}(20+15)(0.1)^{2}\left(\frac{v_{c}}{0.1}\right)\left(10 \partial x_{c}\right) \\
& \therefore v_{c}=\square
\end{aligned}
$$

