



$$2 * 6 = 12$$

$$\downarrow \frac{1}{2} * 24 = 12$$

~~Work - Energy Theorem~~ = ~~Work~~

$$\int_{FL} \vec{F} \cdot d\vec{r} = W = \Delta K + \cancel{W_{int}} + \cancel{W_{ext}}$$

$$FL = W_A = \cancel{K_A} - \cancel{K_B}$$

$$FL = W_B = K_{PB}$$

$$K_{fA} = K_{fB}$$

$$\cancel{\frac{1}{2} m} V_A^2 = \cancel{\frac{1}{2} 4m} V_B^2$$

$$V_A^2 = 4 V_B^2$$

$$V_A = 2 V_B$$