

Chloe Feller

9.

$$x_x^2 = \cancel{m} v_f^2$$

~~5 = 0.1 m~~

$$31x^2 = v_f^2$$

$$\frac{3}{2}x^2 = v_f^2$$

$$v_f^2 = v_0^2 + 2adx$$

$$\frac{x^2}{3} = v_0^2 + 2adx$$

$$J = \frac{2adx}{x^2}$$

$$= \frac{2(10)(1)(2.2)}{(2.2)^2}$$

$$J = 9.09 \text{ cm}$$

$$J = .091 \text{ m}$$