

$$V_0 = 2.0 \frac{\text{m}}{\text{s}}$$

$$\text{final velocity} = 1.3 \frac{\text{m}}{\text{s}}$$

$$X_0 = 5 \text{ cm}$$

$$x = 2 \text{ cm}$$

$$(x - x_0) = -0.03 \text{ m}$$

$$X_0 = .05 \text{ m}$$

$$x = .02$$

$$V^2 = V_0^2 + 2a(x - x_0)$$

$$V^2 - V_0^2 = 2a(x - x_0)$$

$$\frac{V^2 - V_0^2}{2(x - x_0)} = a = \frac{\left(1.3 \frac{\text{m}}{\text{s}}\right)^2 - \left(2.0 \frac{\text{m}}{\text{s}}\right)^2}{2(-0.03) \text{ m}} = a$$

$$a = \frac{1.69 \frac{\text{m}^2}{\text{s}^2} - 4.0 \frac{\text{m}^2}{\text{s}^2}}{-0.06 \text{ m}}$$

$$a = \frac{-2.31 \frac{\text{m}^2}{\text{s}^2}}{-0.06 \text{ m}}$$

$$a = \frac{2.31}{0.06} \frac{\text{m}^2}{\text{s}^2} \cdot \frac{1}{\text{m}}$$

$$= \boxed{38.5 \frac{\text{m}}{\text{s}^2}} \quad \text{wrong}$$