**Crime Scene #1: Gangster Shooting**

\[ \Delta t = 0.0335 \text{ sec} \]
\[ \Delta x = 3 \text{ m} \text{ (distance bullet travelled after hitting Horatio's shoulder)} \]

\[ V_{ix} = \frac{\Delta x}{\Delta t} \]
\[ V_{ix} = \frac{3}{0.0335 \text{ sec}} \]
\[ V_{ix} = 89.55 \text{ m/s} \]

\[ \Delta y = V_{iy} \Delta t + \frac{1}{2} a \Delta t^2 \]
\[ 0.0055 = \frac{1}{2} (9.8) \Delta t^2 \]
\[ 0.0055 = 4.9 \Delta t^2 \]
\[ \frac{0.0055}{4.9} = \Delta t^2 \]
\[ \sqrt{\frac{0.0055}{4.9}} = \sqrt{\Delta t^2} \]
\[ 0.0335 \text{ sec} = \Delta t \]

Compare this answer with the reduced velocity of the bullets from each firearm:

- **.357 magnum (Meir Redwood):** \( 442 \text{ m/s} \times 0.7 = 310.4 \text{ m/s} \)
- **.45 ACP FMJ (Albis Datoady):** \( 250 \text{ m/s} \times 0.8 = 200 \text{ m/s} \)
- **.38 Special (Janice Jackson):** \( 300 \text{ m/s} \times 0.3 = 90 \text{ m/s} \)

:: Janice Jackson committed the shooting, given that her firearm's 90 m/s was closest matched to that which struck Horatio's shoulder.