Equation of motion is

$$200 = vt - \frac{at^2}{2}$$

where v is initial speed of bananamobile, $t = 5$ is time of decelerating, and a is acceleration of the bananamobile.

Equation of speed is

$$v = at$$

From this two equations we find that

$$200 = \frac{at^2}{2}$$

$$a = \sqrt{\frac{200 \cdot 2}{t^2}} = \sqrt{\frac{400}{25}} = \sqrt{16} = 4\, m/s^2$$

The initial speed is

$$at = 4 \cdot 5 = 20 m/s$$