

1) a) $V_{0x} = 20 \text{ m/s}$ $Y = 6 \text{ metros}$ $g = 9.8 \text{ m/s}^2$

$$X = V_{0x} t$$

$$X = 20 \text{ m/s} \times 1.1 \text{ seg}$$

$$X = \underline{22.2 \text{ m/s}}$$

$$t = \frac{\sqrt{2Y}}{g}$$

$$t = \frac{\sqrt{(2)(6 \text{ m/s})}}{9.8 \text{ m/s}^2}$$

$$t = \sqrt{1.22 \text{ seg}^2}$$

$$t = 1.1 \text{ seg}$$

2) $Y = 100 \text{ m}$ $X = 80 \text{ m/s}$

$$V_{0x} = \frac{X}{t}$$

$$V_{0x} = \frac{80 \text{ m/s}}{4.52 \text{ seg}}$$

$$V_{0x} = 17.70 \text{ m/s/seg}$$

$$g = 9.8 \text{ m/s}^2$$

$$t = \frac{\sqrt{2Y}}{g}$$

$$t = \frac{\sqrt{(2)(100 \text{ m})}}{9.8 \text{ m/s}^2}$$

$$t = \sqrt{20.40 \text{ seg}^2}$$

$$t = 4.52 \text{ seg}$$

3) $V_{0x} = 5.5 \text{ m/s}$ $Y = 2 \text{ m/s}$

$$g = 9.8 \text{ m/s}^2$$

$$X = V_{0x} t$$

$$X = 5.5 \text{ m/s} \times 0.63 \text{ seg}$$

$$X = \underline{3.47 \text{ m/s}}$$

$$t = \frac{\sqrt{2Y}}{g}$$

$$t = \frac{\sqrt{(2)(2 \text{ m/s})}}{9.8 \text{ m/s}^2}$$

$$t = \sqrt{0.40 \text{ s}^2}$$

$$t = 0.63 \text{ seg}^2$$

$$4) v_{0x} = 1.8 \text{ m/s} \quad t = 3 \text{ seg} \quad g = 9.80 \text{ m/s}^2$$

$$a) y = \frac{gt^2}{2}$$

$$y = \frac{9.8 \text{ m/s}^2 (3 \text{ seg})^2}{2}$$

$$y = \frac{88.2 \text{ m}}{2} =$$

$$y = 44.1 \text{ m}$$

$$b) x = v_{0x} t$$

$$x = 1.8 \text{ m/s} \times 3 \text{ seg}$$

$$x = 5.4 \text{ m}$$

$$5) v_{0x} = 26 \text{ cm/s}$$

$$x = v_{0x} t$$

$$x = 26 \text{ cm/s} \times 0.58 \text{ seg}$$

$$x = 9.88 \text{ cm}$$

$$t = \sqrt{\frac{2y}{g}}$$

$$t = \sqrt{\frac{2(42 \text{ cm})}{980 \text{ cm/s}^2}}$$

$$t = 0.15 \text{ seg}$$

$$9.8 = \frac{980}{100} = \frac{980}{100} = 980 \text{ cm/s}^2$$

$$t = 0.38 \text{ seg}$$