

Semana 20

1) 80 m de altura

Proyectil 3000

$$t = \sqrt{\frac{24}{9}}$$

$$t = \sqrt{\frac{80 \times 2m}{9.8 \text{ m/s}^2}}$$

$$t = \sqrt{\frac{160}{9.8}}$$

$$t = 4.04$$

$$X = v_0 \times t$$

$$X = 127.2 \text{ m}$$

2) $y = 312 \text{ m}$

$$v_0 = 198 \text{ km/h}$$

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

$$t = \sqrt{\frac{24}{9}}$$

$$t = \sqrt{3.6} = 1.925$$

$$X = 55 \text{ m/s} \times 7.925 = 435.9 \text{ m}$$

3) $y = 100\text{m}$ $y = 90\text{m}$ $g = 9.8\text{ m/s}^2$
 velocidad de lanzamiento

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

$$\sqrt{\frac{200}{9.8}}$$

$$\sqrt{20.41}$$

$$t = 4.525$$

$$44.30\text{ m/s}$$

4) $V_{0x} = 520\text{ pies/s}$ $t = 75$

$$V_{0x} = 158.50\text{ m/s} \quad t = 75.$$

$$y = 240.1\text{ m de altura}$$

$$x = 1,109.5\text{ m de alcance horizontal}$$

5) se lanza V_{0x} 12 m/s 30m altura

$$\sqrt{\frac{60}{9.8}}$$

$$6.12$$

$$x = 2.44m$$

$$t = 2.47$$

6) Altura 2.8m

$$V_{0x} = 90 \text{ m/s}$$

$$t = \frac{\sqrt{56}}{9.8}$$

$$\sqrt{5.77}$$

$$t = 2.39$$

$x = 215.1m$ de alcance

$$V_x = 90 \text{ m/s}$$

7) Altura 1,20m

$$X = 1,53 \text{ m}$$

$$V_0 = 1,04 \text{ m/s}$$

$$t = \frac{\sqrt{2,40}}{9,8}$$

$$0,24$$

$$0,49$$

8) Altura 20m

$$y = 24 \text{ m}$$

$$t = 2,01$$

$$y = 9,69$$