

TIRO PARABÓLICO

$$v_x = v_{ox}$$

$$v_{ox} = v_o \cdot \cos \alpha$$

$$x = v_x \cdot t$$

$$v_y = v_{oy} - g \cdot t$$

$$v_{oy} = v_o \cdot \sin \alpha$$

$$y = v_{oy} \cdot t - \frac{1}{2} \cdot g \cdot t^2$$

$$\text{Si } v_y = 0 \Rightarrow t = \frac{v_o \cdot \sin \alpha}{g}$$

$$t_{\text{alcance}} = \frac{2 \cdot v_o \cdot \sin \alpha}{g}$$

$$y_{\text{máx}} = \frac{v_o^2 \cdot \sin^2 \alpha}{2 \cdot g}$$

$$x_{\text{máx}} = \frac{2 \cdot v_o^2 \cdot \sin \alpha \cos \alpha}{g}$$

Datos iniciales			Resolución	
Velocidad Inicial v_o	400	m/s	$t_{\text{alcance}} =$	70,62
Angulo disparo α	60	Grados	$y_{\text{máx}} =$	6116,21
			$x_{\text{máx}} =$	14124,78