

Optimal Launch Angle

What is the best angle to launch something from at ground level to achieve the maximum range?

You can use parametric equations now to model this see how angle of launch will affect the range and height of a projectile.

A canon ball is launched with an initial velocity of 30m/s at varying angles to the horizontal. What angle will acheive the maximum range?

EQUATIONS

$$x_1 = 30T \cos \theta$$

$$y_1 = -4.9T^2 + 30T \sin \theta$$

$$x_2 =$$

$$y_2 =$$





