

1) Velocity equation in vertical axis:

$$v = v_0 \sin \alpha - gt$$

its known, that initial and final vertical velocity are equal in magnitude, but opposite in direction, so

$$\begin{aligned} -v_0 \sin \alpha &= v_0 \sin \alpha - gt \\ t &= \frac{2v_0 \sin \alpha}{g} \\ t &= \frac{2 * 30.48 * \sqrt{2}}{2 * 9.8} = 4.4 \text{ (s)} \end{aligned}$$

2) Coordinate equation in horizontal axis:

$$S = v_0 \cos \alpha * t$$

$$x = 30,48 * \frac{\sqrt{2}}{2} * 4.4 = 94.8 \text{ (m)}$$

3) Ball reaches the maximum height at the time $t/2$, so:

$$\begin{aligned} h &= v_0 * \frac{t}{2} - \frac{g \left(\frac{t}{2}\right)^2}{2} \\ h &= 30.48 * \frac{4.4}{2} - \frac{9.8 \left(\frac{4.4}{2}\right)^2}{2} = 43.3 \text{ (m)} \end{aligned}$$