Answer on Question 49947, Physics, Mechanics — Kinematics — Dynamics — An aero plane moving horizontally at 150 m/s release a bomb at a height 500m. The bomb hits the intended target. What was the horizontal distance of the aero plane form the largest when the bomb was released?

Solution

Time of fall is

$$t = \sqrt{\frac{2h}{g}} = \sqrt{\frac{2 \cdot 500}{9.8}} \approx 10\,s$$

Horizontal distance traveled during this time is

$$s = vt = 150 \cdot 10 = 1500\,m$$

So, answer is 1500 meters.