Find the rocket position after the engine stops running:

$\Delta x = x_0 + v_{0x}t + \frac{1}{2}a_x t^2$
$x = x_0 + v_{0x}t + \frac{1}{2}(a\cos(\theta))t^2$
$x = 0 + 0 + \frac{1}{2}(5.6(\cos(57)))\times 6.9^2$
$x = 72.6047\,m$

$y = y_0 + v_{0y}t + \frac{1}{2}at^2$
$y = y_0 + v_{0y}t + \frac{1}{2}(a\sin(\theta))t^2$
$y = 0 + 0 + \frac{1}{2}(5.6\sin(57))\times 6.9^2$
$y = 111.801\,m$

Find x and y velocity at that point:

$v_x = v_{0x} + at$
$v_x = v_{0x} + a\cos(\theta)t$
$v_x = 0 + 5.6\cos(57)\times 6.9$
$v_x = 21.0469\ m/s$

$v_y = v_{0y} + a_y t$
$v_y = v_{0y} + a\sin(\theta)t$
$v_y = 0 + 5.6\sin(57)\times 6.9$
$v_y = 32.4062\ m/s$

The object is now in projectile motion with $v_{0x} = 21.0469\,m/s$ and $v_{0y} = 32.4062\,m/s$.
Find maximum height:

$y = y_0 + v_{0y}t + \frac{1}{2}at^2$
$y = 111.801 + 32.4062(3.30676) + \frac{1}{2}(-9.8)(3.30676^2)$
$y = 165.381\,m$

$v = v_0 + at$
$0 = 32.4062 - 9.8t$
$9.8t = 32.4062$
$t_1 = 3.30676$

The object now falls 69 m vertically before opening the parachute:

$\Delta x = x_0 + v_{0x}t$
$\Delta x = x_0 + v_{0x}(t_1 + t_2)$
$\Delta x = 72.6047 + 21.0469\times(3.75255 + 3.30676)$
$\Delta x = 221.167$

$y = y_0 + v_{0y}t + \frac{1}{2}at^2$
$y - y_0 = v_{0y}t + \frac{1}{2}at^2$
$-69 = 0 - 4.9t^2$
$t_2 = 3.75255$

Velocity after the parachute is opened is 9 m/s vertically, and 19 m/s horizontally

Find how much it moves after parachute is opened:

165.381 - 69 = 96.381 m

This is the y position when parachute is opened.

$y = y_0 + v_{0y}t + \frac{1}{2}at^2$

$0 = 96.381 - 9t$

$9t = 96.381$

$t = 10.709$

$\Delta x = v_{0x}t$

$\Delta x = -19 \times 10.709$

$\Delta x = -203.471$

The rocket goes west 203.471 m from after the parachute is deployed so:

221.167 - 203.471 = **17.696 m**

Final x position