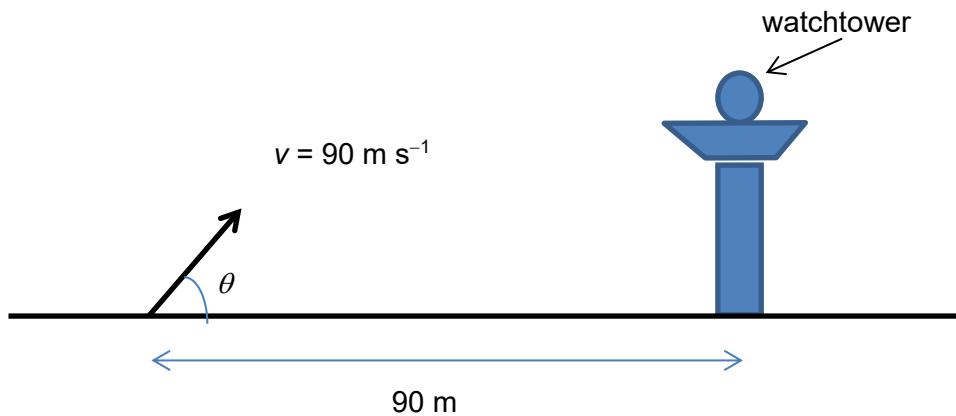


- 3 A projectile is fired at a speed of  $90 \text{ m s}^{-1}$  at sea level at an angle of  $\theta = 31.6^\circ$  with respect to the horizontal as shown below. The projectile hits the top of a watchtower located 90 m away.



How high is the top of the watchtower above sea level? Neglect air resistance.

- A 49 m
- B 72 m
- C 83 m
- D 113 m

