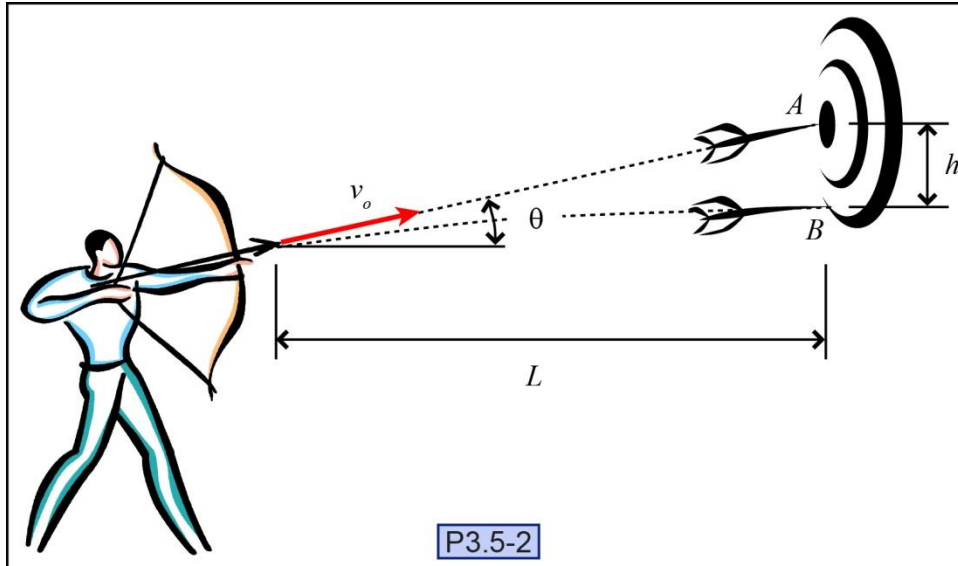


**P3.5-2)** If an arrow is aimed at point  $A$  as shown, compute the distance  $h$  below the intended target where the arrow will hit at point  $B$ . The initial velocity  $v_o$  of the arrow is 44 m/s, the angle that the velocity makes with the horizontal is  $\theta = 15^\circ$  and the distance between the arrow and the target is  $L = 50$  m.



Given:

Find:

Solution:

Calculate the time that it takes to get to the target.

Calculate the height that the arrow hits below the center of the target.

$$t_B = \underline{\hspace{10em}}$$

$$h = \underline{\hspace{10em}}$$