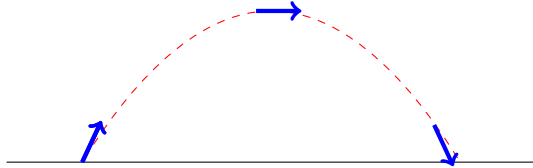


## Projectile Motion - Quiz II

An arrow is shot with a velocity of 120 m/s at a  $72^\circ$  angle.

- (a) Label this diagram of the situation and **make a T-chart** to list your knowns and unknowns. (3 points)



- (b) Draw a triangle and calculate the  $x$ - and  $y$ - velocities of the arrow at the moment it is shot into the air. (3 points)

- (c) What is the maximum height that the arrow will reach? (3 points)

- (d) How long will the arrow be in the air? (3 points)

- (e) How far forward will the arrow go before hitting the ground? (3 points)