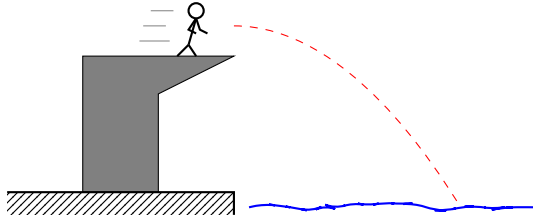


Projectile Motion - Quiz I

A child runs straight off a high-dive platform with a horizontal velocity of 1.1 m/s . He lands in the water, 4.2 meters below

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



- (b) How long will it take the child to reach the water? (3 points)
- (c) What horizontal distance will the child move before hitting the water? (3 points)
- (d) What are the x - and y - components of the child's velocity just before he hits the water? (3 points)
- (e) Draw a triangle and calculate the magnitude and direction of the child's resultant velocity just before hitting the water. (3 points)