1. A ball is thrown horizontally from the top of a building 15 m high. The ball strikes the ground at a point 24 m from the base of the building. 
A) Find initial velocity of the ball. B) Find the $x$ and $y$ components of the ball's velocity just before it strikes the ground.

2. A projectile is fired from the edge of a cliff at a speed $v_0 = 120$ m/s with an angle of $\Theta = 60^\circ$ from the horizontal. The projectile is in flight for 22 s. A) How long after launch, does it take to reach the peak of its trajectory? B) What is the speed of the projectile just before it strikes the ground?
3. A cannon sends a projectile towards a target a distance 1200 m away. The initial velocity makes an angle 20° with the horizontal. The target is hit. What is the magnitude of the initial velocity?