1. A ball is thrown at 23 m/s at an angle of 35° above the horizon. The ground is level.

a) What is the maximum height the ball attains?( 8.87m)

b) What is the horizontal distance the ball covers for the entire trip ?(50.68m)

c) What is the final velocity of the ball just before it hits the ground?( )

6.)

b)

c)

1. A rock is thrown horizontally from a 22.0 m cliff with an initial velocity of 18.0 m/s.
   1. How long does it take to hit the ground? (2.1sec)
   2. How far from the base of the cliff does it land? (37.8m)

7.)

b)

1. A ball is thrown horizontally from a second floor window with a velocity of 12.5 m/s. It lands 8.35 m away from the building. How high is the window? (t= 0.668s)(2.18m)

1. A car is launch from a Trebuchet with a initial velocity of 20 m/s at 37 degrees above the horizon – How far back will it have to launched from in order to hit the castle wall that is \_\_\_\_\_ meters away?

1. A 2 kg ball rolls off the 2 m counter with an initial velocity of 14.3 cm/s
   1. How far will it land away from the counter?

Bonus

* 1. What is deceleration if the ball lands with a FA  = 35.6N forward and uk of the floor is 0.6?