Problem 3-A
A tiger leaps horizontally from a 6.5 m high rock with a speed of 3.5 m/s. How from the base of the rock will she land?

Problem 3-B
A diver running at 1.8 m/s, dives out horizontally from the edge of a vertical cliff and 3.0 s later reaches the water below.
   a) How high is the cliff?
   b) How far from its base does the diver hit the water?

Problem 3-C

Romeo is chucking pebbles gently up to Juliet’s window, as shown in the diagram above, and he wants the pebbles to hit the widow with only a horizontal component of velocity. He is standing at the edge of a rose garden 4.5 m below her window and 5.0 m from the base of the wall. How fast are the pebbles going when they hit her window?

Problem 3-D
A ball is thrown horizontally form the roof of a building 45.0 m tall and lands 24.0 m from the base. What is the balls initial speed?

Problem 3-E
An Alaskan rescue plane drops a package to a stranded hiker. If the plane is flying at an altitude of 100.0 m at a speed of 40.0 m/s:
   a) How far before reaching the hiker must the plane drop the package?
   b) What is the velocity of the package as it hits the ground? (include both magnitude and direction.)