Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_\_\_\_\_\_\_\_\_

Page 64 - Practice Problems F –Falling Objects:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A robot probe drops a camera off the rim of a 239 m high cliff on Mars, where the free fall acceleration is -3.7 m/s2.
2. Find the velocity with which the camera hits the ground.
3. Find the time period for it to hit the ground.
4. A flowerpot falls from a windowsill 25.0 m above the sidewalk.
5. How fast is the flowerpot moving when it strikes the ground?
6. How much time does a passerby on the sidewalk below have to move out of the way before the flowerpot hits the ground?
7. A tennis ball is thrown vertically upward with an initial velocity of +8.0 m/s.
8. What will the ball’s speed be when it returns to its starting point?
9. How long will the ball take to research its starting point?
10. Calculate the displacement of the volleyball in sample problem F when the volleyball’s final velocity is 1.1 m/s upward.