**Particle Motion Worksheet KEY**

**Example 3 (Star Wars Example)**

1. -32 feet
2. After 5 seconds
3. -144 ft/sec
4. 144 ft/sec
5. a(t) = - 32 ft/s^2

**Example 4 (Velocity Graph)**

1. Left
2. t=3 and t=7 (technically it is stopped at t=0 before it even starts moving and t=10 when it’s done moving for good)
3. t=7
4. (0,3) u (3,7)
5. (7,10)
6. (0,1) u (3,4) u (7,9)
7. (1,3) u (5,7) u (9,10) [when the velocity function is moving towards the x-axis]
8. (4,5) [the velocity function is furthest away from the x-axis]
9. (4,5)