

Name: _____ Date: _____

m_r^β **Physics Practice: Motion**

1. An object is moving at constant velocity. Its position at time t is given by $p(t)$. At time $t = 0$, its position is zero. Five seconds later, it has moved 10 meters.

a. Graph $p(t)$ vs. t .

b. Graph $v(t)$ vs. t .

c. Describe how the graph of v is related to the graph of p .

2. An object is moving at a constant velocity of 3 m/s.
- Graph $v(t)$ vs. t .

b. Graph $p(t)$ vs. t .

c. Describe how the graph of p is related to the graph of v .

3. An object is moving at 5 m/s for 4 seconds, then abruptly slows to 2 m/s for 6 seconds, then stops abruptly. Assume that $p(0) = 0$.

a. Graph $v(t)$ vs. t .

b. Graph $p(t)$ vs. t .

c. What is the *average speed* of the object over the 10 seconds?