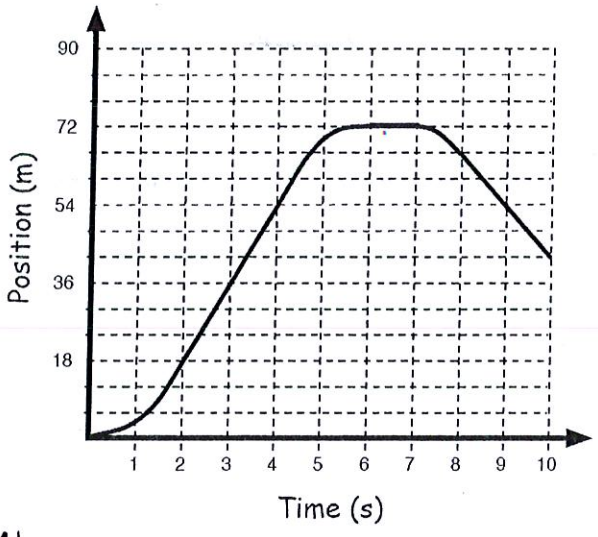
Name: _____ Block: _____

Motion Graphs

1. An object's motion is described by the following graph of position *vs.* time:



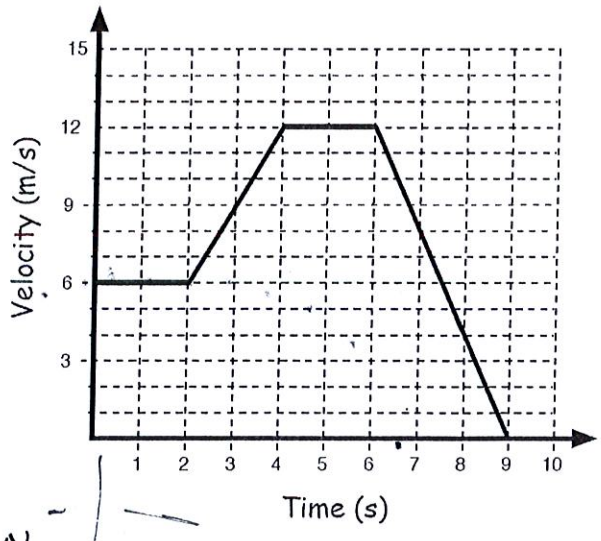
(a) What is the object doing between 2 s and 4 s? What is its velocity during that interval? constant velocity forward
18 m/s

(b) What is the object doing between 6 s and 7 s? What is its velocity during that interval? not moving
0 m/s

(c) What is the object doing between 8 s and 10 s? What is its velocity during that interval? constant velocity BACKWARDS
-12 m/s

DOT MOTION

2. An object's motion is described by the following graph of velocity *vs.* time:



(a) What is the object doing between 0 s and 2 s? What are its velocity and acceleration during that interval?
constant velocity forward
+6 m/s 0 m/s²

(b) What is the object doing between 2 s and 4 s? What is its acceleration during that interval? accelerating +
+3 m/s²

(c) What is the object doing between 6 s and 9 s? What is its acceleration during that interval? decelerating (accelerating -)
-4 m/s²

DOT MOTION