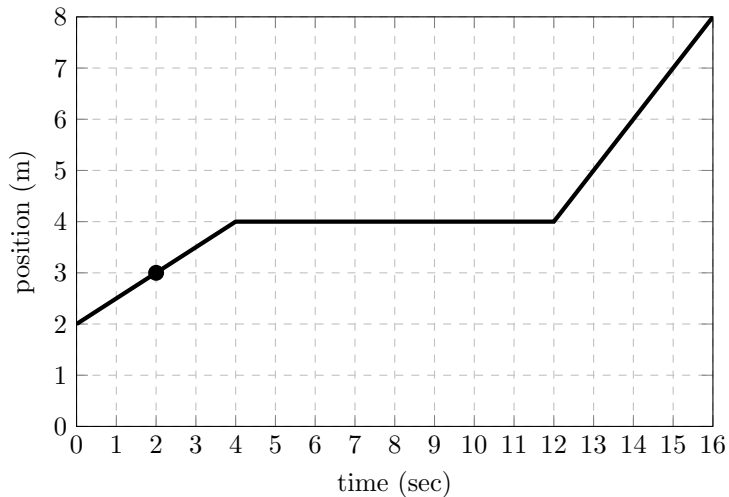


Unit P1 Review (Motion) - Part II

1. What are the three ways to accelerate?
2. What is the acceleration of a car moving at a constant speed in a straight line? How do you know?
3. The motion of an object during a 16 second time period is graphed below.



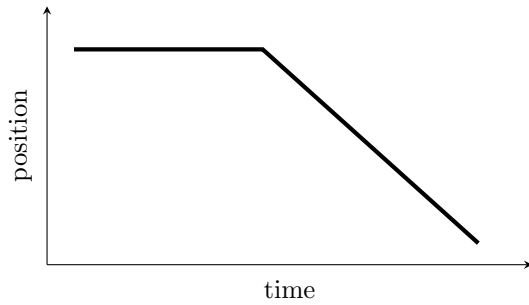
- (a) What is the object's position at 2 seconds?
- (b) How far has the object traveled from the beginning of the motion ($t = 0$ s) to the point indicated by the dot on the graph ($t = 2$ s)?
- (c) What is the object doing at 2 seconds? (for example, moving forward and speeding up, moving backward at a constant speed, standing still, etc.)
- (d) What distance did the object between when it started ($t = 0$ s) and ended ($t = 16$ s) its motion.
- (e) What is the velocity of the object between 0 seconds and 4 seconds?
- (f) What is the velocity of the object between 12 seconds and 16 seconds?

Name: _____

Date: _____

Period: _____

4. A position versus time graph of a car is shown below. Explain in at least two sentences what the car is doing.



5. How far will a train moving at 15.7 m/s go in 50 seconds?

Knowns/Unknowns

Plug & Chug

Answer w/ Units

6. A bird flies at a speed of 5.56 m/s . How much time does it take for the bird to fly 6000 m?

Knowns/Unknowns

Plug & Chug

Answer w/ Units

7. A rocket accelerates from rest to 400 m/s in 75 seconds. What is its acceleration?

Knowns/Unknowns

Plug & Chug

Answer w/ Units

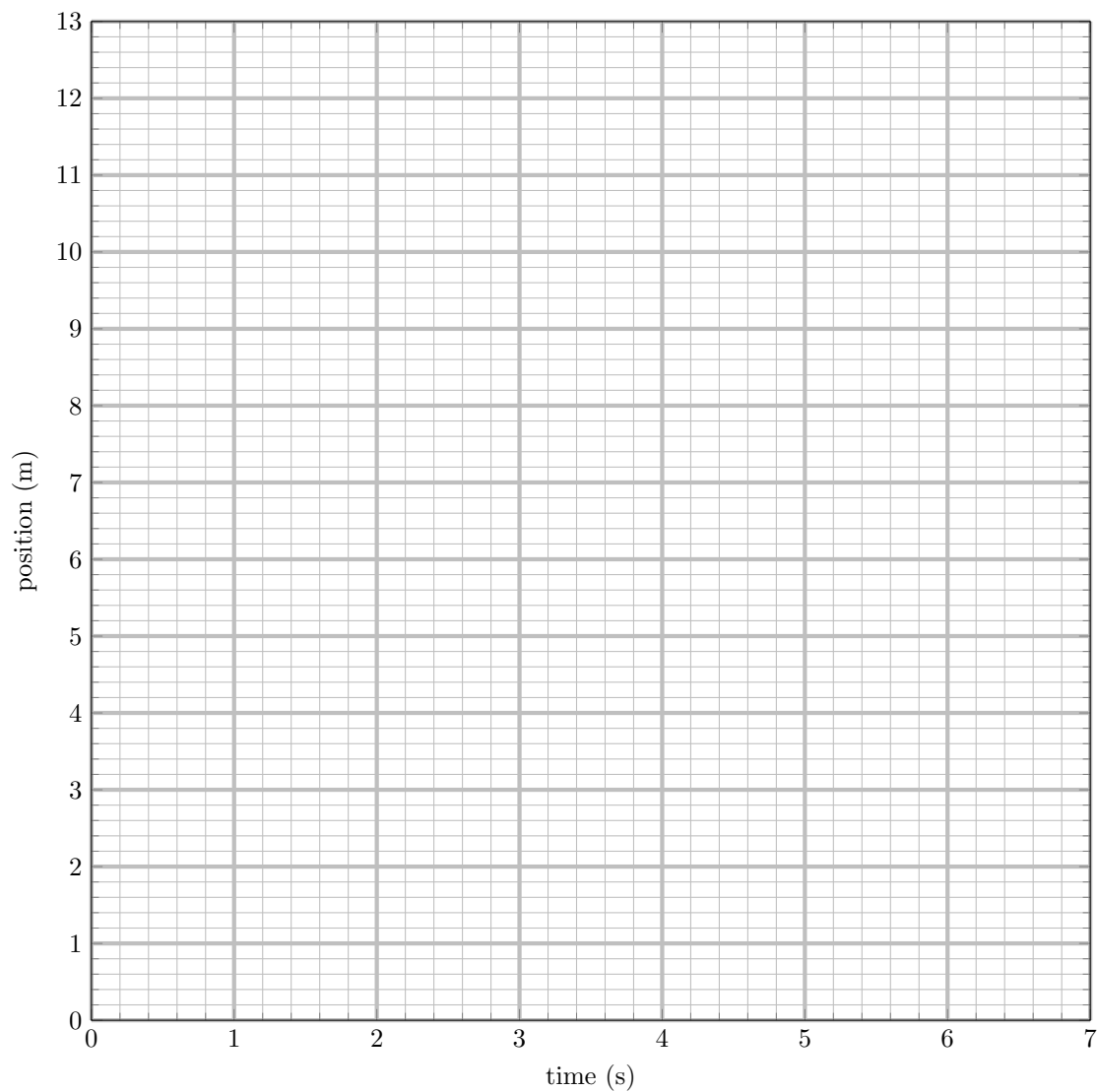
Name: _____

Date: _____

Period: _____

8. Given the following data, make a graph of position vs. time of the motion of this object. Fit a straight line to the data graphed.

Time (s)	Postion (m)
0.8	1.6
1.6	3.2
2.0	4.0
2.8	5.6
4.0	8.0
6.0	12.0



9. Use the graph to determine the velocity of the car.

Name:

Date:

Period:
