Name: _____

Period: _____

Chapter 1 and 2 Review

Ch 1:1 The Math Code - *Know what the variables mean, what their units are and how to read the math code (including how to rearrange equations).*

mv = m *times* v F/a = F _____ a $T_2 + T_1 = T_2$ _____ T_1 mv = m _____ v $\Delta D/\Delta T = \Delta D$ _____ ΔT	Match the variables with the quantities. 1. a = _____ 2. S or v = _____ 3. D = _____ 4. F = _____ 5. T = _____	80 sec 3 meters/sec 43 m/s^2 45 meters 22 newtons	Equation: $S = \Delta D/\Delta T$; solve for ΔD.	$a = \Delta S/\Delta T$; solve for ΔS: Solve for ΔT:

Ch 1:2 Speed - *Know how to use and manipulate the speed equation to calculate speed, distance, and time.*

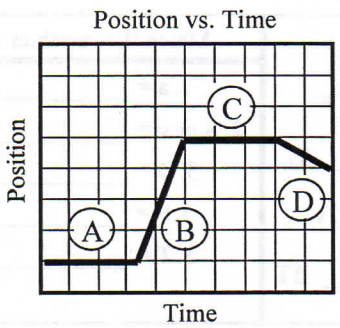
A car travels 10 m/s for 5 secs. Calculate how far it traveled.		You travel from Maine (100 miles away) to Vermont (300 miles away), in 4 hours. Calculate your speed.	
Variables:	Formula: Solution:	Variables:	Formula: Solution:
A bike goes 12 m/s for 6 seconds. Calculate how far the bike traveled.		You're meeting a friend at 6 p.m. She lives 180 miles away. The speed limit is 60 mph. When do you need to leave?	
Variables:	Formula: Solution:	Variables:	Formula: Solution:

Ch 1:2 and 1:3 Experiments and Variables - *Know the Scientific Method; know what makes a good experiment; know the vocabulary; know the difference between an experimental variable and a control variable.*

		Experimental or Control variable:	
1. Experiment 2. Data Table 3. Trial 4. Variable 5. Procedure	A. One time an experiment is run. B. How an experiment is actually conducted. C. A setup used to gather data and knowledge. D. A list of information from an experiment. E. A part of an experiment that can be changed or manipulated.	Variables that you keep the same in an experiment: A variable that you are studying in an experiment: You have only one of these: You can have many of these:	You are studying the affects of pressure on gas absorption in a liquid. The amount of gas pressure would be: The type of liquid would be: The room temperature would be: The type of container would be:

Ch 1:4 Slope - *Know how to calculate slope and know what slope means for a position vs. time graph and a speed vs. time graph.*

1. Linear	A. The variable on the vertical axis (y-axis).
2. Independent variable	B. The slope of a speed vs. time graph.
3. Dependent variable	C. The variable on the horizontal axis (x-axis).
4. Slope	D. A type of graph that looks like a straight line.
5. Speed	E. The measure of the steepness of a line.
6. Acceleration	F. The slope of a position vs. time graph.



Which segment is:

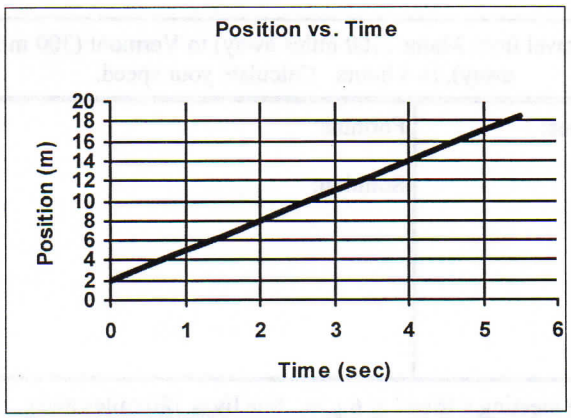
At rest:

Fast speed:

Slow speed:

Going backwards:

Going forward:



Which is the independent variable? _____

Which is the dependent variable? _____

Where was the object at 4 seconds? _____

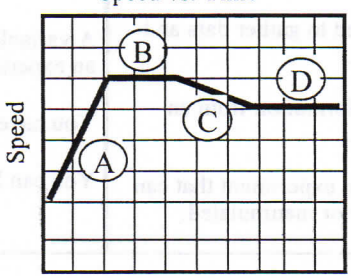
Find the slope of the graph (must show work)

What does the slope you just found stand for? _____

Ch 2:1 Acceleration and Average Speed - *Know how to calculate acceleration and average speed. Know the difference between speed and velocity and scalar vs. vector quantities.*

A person starts running from 3 m/s to 9 m/s in 2 seconds. Calculate the person's acceleration.		A plane stops from 300 mph in 15 seconds. Calculate the planes acceleration.	
Variables: Formula:	Solve:	Variables: Formula:	Solve:

Speed (S) or Velocity (V)	Scalar (S) or Vector (V)
___ A person walks 3.5 mph.	____A 50 N force pulls on a rock.
___ A bird flies 20 m/s.	____10 meters down the hill.
___ A bike goes 30 m/s toward town.	____60 mph toward Austin.



Which graph segments fit the following:

Constant speed:

Deceleration:

Accelerating: