

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).

$mv = m$ <u>times</u> v $F/a = F$ _____ a $T_2 + T_1 = T_2$ _____ T_1 $mv = m$ _____ v $\Delta D/\Delta T = \Delta D$ _____ ΔT	<p style="text-align: center;">Match the variables with the quantities.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">1. $a =$ _____</td> <td style="width: 50%; padding: 2px;">80 sec</td> </tr> <tr> <td style="padding: 2px;">2. S or $v =$ _____</td> <td style="padding: 2px;">3 meters/sec</td> </tr> <tr> <td style="padding: 2px;">3. $D =$ _____</td> <td style="padding: 2px;">43 m/s^2</td> </tr> <tr> <td style="padding: 2px;">4. $F =$ _____</td> <td style="padding: 2px;">45 meters</td> </tr> <tr> <td style="padding: 2px;">5. $T =$ _____</td> <td style="padding: 2px;">22 newtons</td> </tr> </table>	1. $a =$ _____	80 sec	2. S or $v =$ _____	3 meters/sec	3. $D =$ _____	43 m/s^2	4. $F =$ _____	45 meters	5. $T =$ _____	22 newtons	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">Equation: $S = \Delta D/\Delta T$; solve for ΔD.</td> <td style="width: 50%; padding: 2px;">$a = \Delta S/\Delta T$; solve for ΔS:</td> </tr> <tr> <td colspan="2" style="text-align: right; padding: 2px;">Solve for ΔT:</td> </tr> </table>	Equation: $S = \Delta D/\Delta T$; solve for ΔD .	$a = \Delta S/\Delta T$; solve for ΔS :	Solve for ΔT :	
1. $a =$ _____	80 sec															
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Solve for ΔT :																

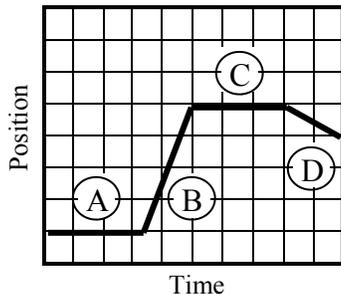
Ch 1:2 Speed - Know how to use and manipulate the speed equation to calculate speed, distance, and time.

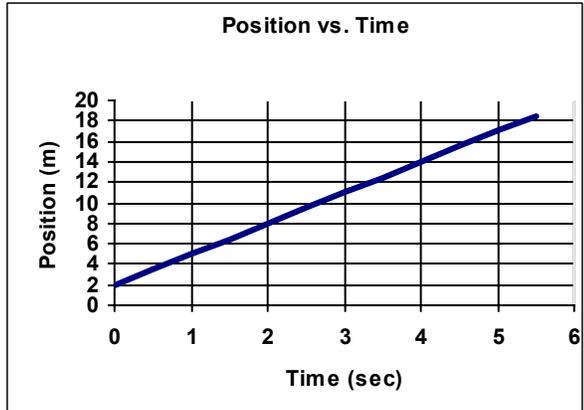
A car travels 10 m/s for 5 secs. Calculate how far it traveled.		You travel from Maine (100 miles away) to Vermont (300 miles away), in 4 hours. Calculate your speed.	
Variables:	Formula: Solution:	Variables:	Formula: Solution:
A bike goes 12 m/s for 6 seconds. Calculate how far the bike traveled.		You're 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.

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

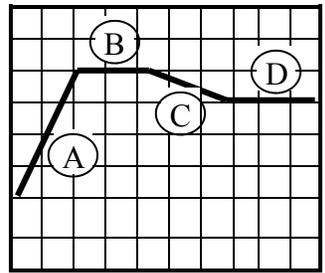
1. Linear 2. Independent variable 3. Dependent variable 4. Slope 5. Speed 6. Acceleration	A. The variable on the vertical axis (y-axis). B. The slope of a speed vs. time graph. C. The variable on the horizontal axis (x-axis). D. A type of graph that looks like a straight line. E. The measure of the steepness of a line. F. The slope of a position vs. time graph.	<div style="text-align: center;"> <p>Position vs. Time</p>  <p>Position</p> <p>Time</p> </div> <p>Which segment is:</p> <p>At rest: _____</p> <p>Fast speed: _____</p> <p>Slow speed: _____</p> <p>Going backwards: _____</p> <p>Going forward: _____</p>
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<div style="text-align: center;"> <p>Position vs. Time</p>  <p>Position (m)</p> <p>Time (sec)</p> </div>	<p>Which is the independent variable? _____</p> <p>Which is the dependent variable? _____</p> <p>Where was the object at 4 seconds? _____</p> <p>Find the slope of the graph (must show work)</p> <p>What does the slope you just found stand for? _____</p>
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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:	Solve:	Variables:	Solve:
Formula:		Formula:	

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.

<div style="text-align: center;"> <p>Speed vs. Time</p>  <p>Speed</p> <p>Time</p> </div>	<p>Which graph segments fit the following:</p> <p>Constant speed: _____</p> <p>Deceleration: _____</p> <p>Accelerating: _____</p>
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