

### Review for Comprehensive Test #3 on Friday Jan. 12, 2018

This will be a comprehensive test that covers Topics 7, 8, 9 and 10      **EXTRA = Extra practice questions for this particular concept can be found on the 2<sup>nd</sup> page**

#### Topic 7- Slope and Linear Relations (Ch. 6.1, 6.2 and 5.2, 5.5, 5.6 and 5.7)

Concept #	Concept	Review Questions
27	6.1 Correctly determine the slope of a line or line segment by using the graph or the formula when given two points. Explain the meaning of zero or undefined slopes and draw a line given its slope and a point on the line. <b>(NC)</b>	<b>Pg 353 #1,2,3      Pg 388 #1,3 Pg 391#1 Pg 388 #2 (EXTRA)</b>
28	6.2 Determine whether two lines are parallel or perpendicular, explain and solve situational problems <b>(NC)</b>	<b>Pg 388 #6,7,8,9      Pg 353 # 7,8</b>
29	5.7 & 6.1 Solve situational problems involving domain, range and rate of change of a linear relation <b>(NC)</b>	<b>Pg 329 #5d,e      Pg 328 #15, 16b,c Pg 460 #16b,c</b>
30	5.2 Be able to change between function notation and equations with two variables, and use function notation to find values. <b>(NC)</b>	<b>Pg 326 #4,5      Pg 327 #11 Pg 329 #1</b>
31	5.6/5.7 Determine the intercepts of a linear function given the graph or the equation. <b>(NC)</b>	<b>Pg 322 #16b,17a,18i (EXTRA)</b>

#### Topic 8- Equations of Lines (Ch. 6.4-6.6 )

Concept #	Concept	Review Questions
32	6.4 Write the equation of a linear function in <b>SLOPE-INTERCEPT</b> form (either from given info or from a graph). Given an equation in <b>slope- intercept form</b> be able to identify the values of slope and y-intercept. Graph an equation given in <b>SLOPE INTERCEPT FORM. (NC)</b>	<b>Pg 376#2a,b, 4a Pg 389 #11, 12, 13 pg 460 #20</b>
33	6.5 Write an equation of a line in <b>POINT – SLOPE FORM</b> (either from given info or from a graph). Given an equation in <b>POINT- SLOPE FORM</b> be able to identify the values of slope and one point and graph it. Graph a linear function given its equation in <b>POINT- SLOPE FORM. (NC)</b>	<b>Pg 389 #17, 18 Pg 376 #3ab Pg 461#21a</b>
34	6.5 Write an equation(In more than one form) of a line given two points on the line ( <b>NC</b> )	<b>Pg 390#19 Pg 376 #3c</b>
35	6.6 Rewrite an equation in general form $ax+by+c=0$ and graph a line in general form (Using the x and y intercepts and the slope-intercept method) <b>(NC)</b>	<b>Pg 390 #22, 25 Pg 461 #24a</b>
36	6.5 Write an equation of a line that is parallel or perpendicular to a given line. <b>(NC)</b>	<b>Pg 389 #15, 16 Pg374 #21-25</b>
37	6.4 Use an equation of a linear function to solve a situational problem. <b>(NC)</b>	<b>Pg 390 #27,28      Pg 376 #2 Pg 389 #14</b>

**Topic 9 – Systems of Linear Relations (Ch. 7)**

Concept #	Concept	Review Questions
38	7.1 Create a linear system to model a situation	Pg 415 #1,5a pg 461 #25
39	7.2 Solve a system <b>graphically, with/without technology</b> , and verify the solutions	Pg 415 #3, 5b Pg 461 #26 Pg 452 #7 (also verify the solution)
40	7.4 Solve a system <b>algebraically</b> using <b>substitution and/or elimination</b> verify the solutions	Pg 453 #10 pg 461 #29
41	7.6 Determine the number of solutions for a linear system	Pg 461 #31 Pg 454 #20 Pg 455 #2,3

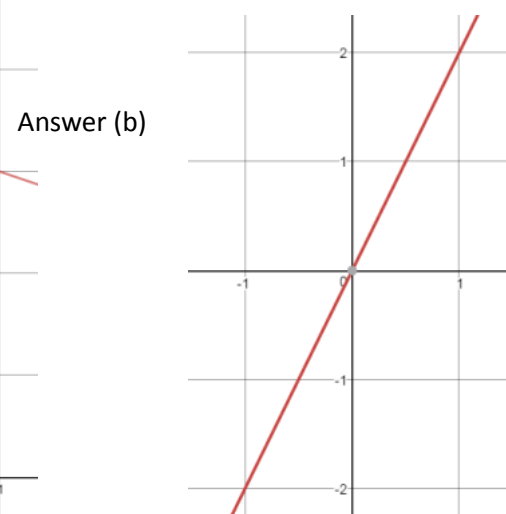
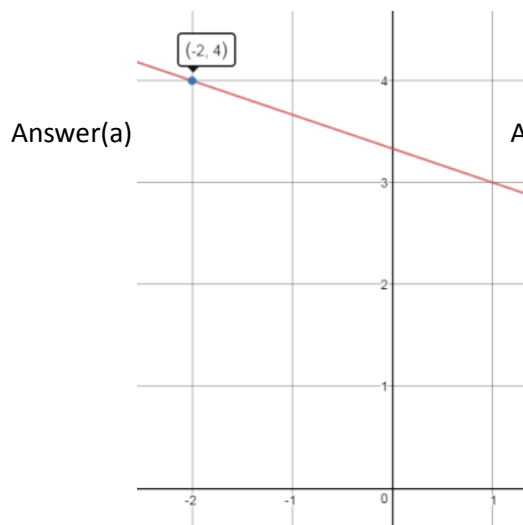
**Extra Practice Questions:**

**Concept #27** 1) What is the slope of: a) a vertical line? Explain why? b) a horizontal line? Explain why? **Answer: a) undefined b) zero**

**Concept #27** 1) Draw the following lines

a) A line that passes through  $(-2, 4)$  and has a slope of  $-\frac{1}{3}$

b) a line that passes through the origin and has a slope of 2



**Concept #31** 1) Determine the coordinates for the x and y intercepts for each of the following linear equations

a)  $7x + y + 14 = 0$  b)  $g(x) = \frac{5}{4}x - \frac{3}{4}$  c)  $x = -6$  d)  $y = 4$  **Answers: a)  $(-2, 0)$  and  $(0, -14)$  b)  $(\frac{3}{5}, 0)$  and  $(0, -\frac{3}{4})$  c)  $(-6, 0)$  and y-int does not exist d) x-int does not exist and  $(0, 4)$**