

Week 14 Algebra 1 Assignment:

Day 1: pp. 268-269 #1-39 odd

Day 2: Chapter 6 test

Day 3: pp. 275 #1-10, 11-19 odd, 21-25

Day 4: pp. 278-279 #9-19 odd, 21-28

Day 5: pp. 282-283 #1-19 odd, 22-26

Notes on Assignment:

Pages 268-269:

Work to show:

#1-5: Graph on single graph.

#7-9: Four answers for each.

#11-13: Graphs

#15-19: Show work

#21-25: Graphs

#27-31: Show work finding equations as in previous assignments.

#33-35: Find the direct variation equation and finish problem

#37-39: Graphs.

Chapter Review – no notes

Chapter 6 test:

Notes on the test:

- From a given graph, name the slope, the y-intercept, and give the equation of the line.
- From a given graph, give the inequality that it represents.
- Given a graph or a set of points, determine whether the relation is a function.
- Show a relation in set form and as a circle mapping.
- List a relation's domain (x-values) and range (y-values).
- Find the slope of a line given 2 points on the line.
- Write equations in slope-intercept form.
- Find the equation of a line given:
 - slope and y-intercept
 - slope and a point
 - 2 points
- Graph linear equations and linear inequalities
- Find x-intercepts (let $y = 0$) and y-intercepts (let $x = 0$)
- Find equations of direct variations and their associated values
- Extra credit: Define function

Page 275:

Work to show:

#1-10: Show substitution of the point into each equation.

#11-19: To solve a system of equations by graphing, you must do the following:

1. Write each equation in slope-intercept form.
2. Graph each equation carefully.
3. Label each line.
4. Find the point of intersection.
5. Check the point in each of the original equations. (You can do this mentally.)

#21-25: Show work in simplifying.

#1-10: If a point is a solution for a system of equations, it must work in both equations. (i.e. it must check in both equations and give you a true statement).

#21: You must follow your order of operations and multiply before adding.

#24: Take care of the negative exponents first.

Pages 278-279:

Work to show:

#9-19: To solve a system of equations by graphing, you must do the following:

1. Write each equation in slope-intercept form.
2. Graph each equation carefully.
3. Label each line.
4. Find the point of intersection.
5. Check the point in each of the original equations. (You can do this mentally.)

#21-23: Answers only

#24-28: Solve these as you have done in previous assignments. Show work.

Notes for this section: Here are the possible solutions for systems of equations:

	Consistent		Inconsistent
	Independent	Dependent	
Number of solutions	<i>finite</i>	<i>infinite</i>	<i>none</i>
Graphs	<i>lines intersect</i>	<i>lines coincide (same line)</i>	<i>lines are parallel</i>

#9-19: Refer to the chart above for these problems. If the lines are parallel, then your system is inconsistent. If they intersect at a point, your system is consistent and independent. If they are the same line, your system is consistent and dependent.

#21: These are parallel lines. What do you know about their slopes? And do they have the same y-intercepts or different ones?

#26: Clear the fractions by multiplying through by the LCM.

#28: Remember to do the “flip-n-switch.”

Pages 282-283:

Work to show:

#1-19: To solve a system by substitution, do the following:

1. Solve one equation for one of the variables. (Choose the easiest one.)
2. Substitute into the other equation.
3. Solve that equation.
4. Back-substitute your solution into one of the equations to solve for the other variable.
5. Check your solution.

#22-26: Answers only

#1: The only thing that I would **not** do here is solve for x in the top equation (because of the 3). Solve for any of the other variables.

#3: The obvious choice here would be to solve the top equation for x , since it is the only variable without a coefficient. You get $x = 30 - 4y$. Now in the 2nd equation, where you see an x , put in $(30 - 4y)$ since that is what x equals. Your equation before and after substituting will look like this:

$$2x + 5y = 36$$

$$2(30 - 4y) + 5y = 36$$

Solve this equation for y .

$$60 - 8y + 5y = 36$$

$$60 - 3y = 36$$

$$60 - 3y - 60 = 36 - 60$$

$$-3y = -24$$

$$y = 8$$

Substitute back into your equation $x = 30 - y$ to find x .

$$x = 30 - 4y$$

$$x = 30 - 4(8)$$

$$x = 30 - 32$$

$$x = -2$$

Your solution is $(-2, 8)$.

#15-17: These answers will be fractions.