

ALEKS® Final Prep Quiz 3 #1

Beginning Algebra / Math 100 – Master No Book (Prof. Miller)

Student Name/ID:

Instructor Note:

Directions: Every problem is worth two points. One point is for trying the problem and showing your work and one point is for getting the correct answer. There are an additional five points for demonstrating the study strategy that is posted on the board and talked about at the beginning of class.

1. Solve for y .

$$9 = \frac{9y+5}{8} + \frac{y-6}{2}$$

Simplify your answer as much as possible.

2. Find an ordered pair (x, y) that is a solution to the equation.

$$2x - y = 3$$

3. Find the slope of the line passing through the points $(-9, -6)$ and $(-4, 5)$

4. Consider the line $y = -\frac{5}{2}x - 6$

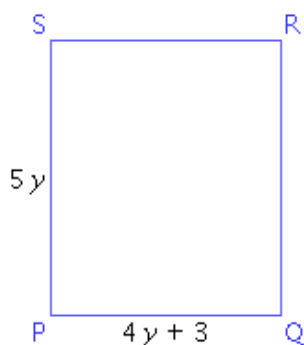
- (a) Find the equation of the line that is perpendicular to this line and passes through the point $(-8, 6)$
- (b) Find the equation of the line that is parallel to this line and passes through the point $(-8, 6)$

5. Simplify.

$$-6x - 2(-4y + 2x) - 5y$$

6. The perimeter of the rectangle below is 132 units. Find the length of side \overline{PS}

Write your answer without variables.



7. Solve for u

$$-\frac{3}{2} = -\frac{2}{7}u - \frac{9}{5}$$

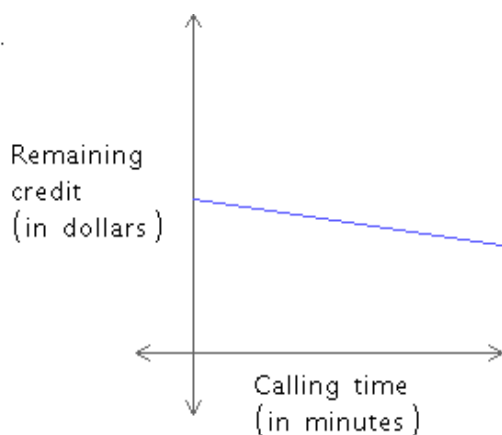
Simplify your answer as much as possible.

8. Divide.

$$\frac{6x^4 - 12x^3}{2x^2}$$

Simplify your answer as much as possible.

9. The credit remaining on a phone card (in dollars) is a linear function of the total calling time made with the card (in minutes). The remaining credit after 28 minutes of calls is \$26.64 and the remaining credit after 61 minutes of calls is \$22.68. What is the remaining credit after 67 minutes of calls?



10. Evaluate the expressions.

$$\left(-\frac{2}{3}\right)^0 =$$

$$-(5)^0 =$$

11. Write equations for the horizontal and vertical lines passing through the point $(-8, 1)$

horizontal line:

vertical line:

12. Rewrite without parentheses and simplify.

$$(u - 4)^2$$

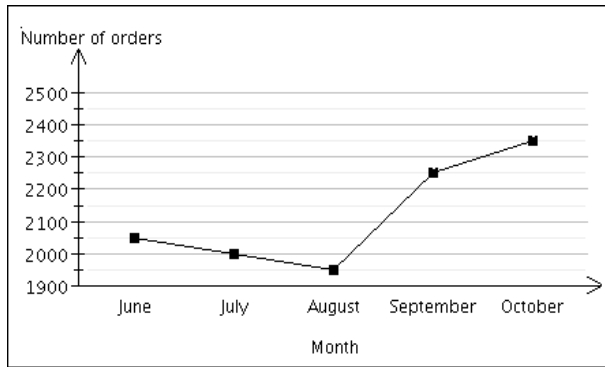
13. Use the distributive property to remove the parentheses.

$$-5(-y - 4w + 3)$$

14. Factor the following expression.

$$18v^7w^2y^2 - 24v^4w^9$$

15. The graph below shows the numbers of orders received by a company for five months.



- (a) What was the least number of orders in a month?
- (b) When did the number of orders have the greatest increase?

Final Prep Quiz 3 #1 Answers for class Beginning Algebra / Math 100 – Master No Book

1. $y = 7$

2. One possible answer is $(x, y) = (0, -3)$

3. $\frac{11}{5}$

4. Equation of perpendicular line: $y = \frac{2}{5}x + \frac{46}{5}$

Equation of parallel line: $y = -\frac{5}{2}x - 14$

5. $-10x + 3y$

6. $PS = 35$

7. $u = -\frac{21}{20}$

8. $3x^2 - 6x$

9. \$21.96

10. $\left(-\frac{2}{3}\right)^0 = 1$
 $-(5)^0 = -1$

11. horizontal line: $y = 1$
vertical line: $x = -8$

12. $u^2 - 8u + 16$

13. $5y + 20w - 15$

14. $6vw^7(3y^2 - 4v^3w^2)$

15. (a) What was the least number of orders in a month?

1950 orders

(b) When did the number of orders have the greatest increase?

August to September