

ALEKS® Final Prep Quiz 1 #1

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

Student Name/ID:

Instructor Note:

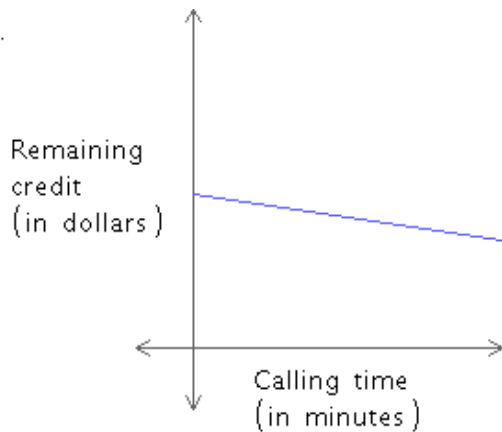
Directions: Every problem is worth two points. One point is for trying the problem and showing your work and one point is for getting the correct answer. There are an additional five points for demonstrating the study strategy that is posted on the board and talked about at the beginning of class.

1. Two trains leave stations 504 miles apart at the same time and travel toward each other. One train travels at 95 miles per hour while the other travels at 85 miles per hour. How long will it take for the two trains to meet?

Do not do any rounding.

hours

2. 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?



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

horizontal line:

vertical line:

4. Leila purchased a prepaid phone card for \$25. Long distance calls cost 23 cents a minute using this card. Leila used her card only once to make a long distance call. If the remaining credit on her card is \$14.65, how many minutes did her call last?
5. At the city museum, child admission is \$5.30 and adult admission is \$8.80. On Wednesday, 154 tickets were sold for a total sales of \$1050.70. How many adult tickets were sold that day?

6. Factor.

$$y^2 - 10y + 16$$

7. Evaluate the expressions.

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

$$-(5)^0 =$$

8. Divide.

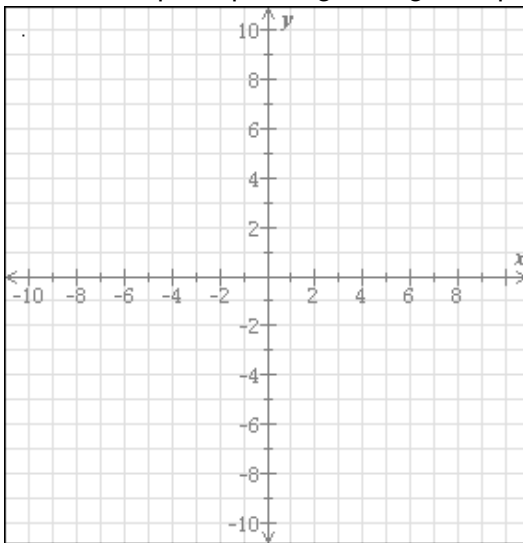
$$\frac{6x^4 - 12x^3}{2x^2}$$

Simplify your answer as much as possible.

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

$$2x - y = 3$$

10. Graph the line with slope 3 passing through the point $(2, -1)$



11. The price of a notebook was \$3.70 yesterday. Today, the price fell to \$3.20 Find the percentage decrease. Round your answer to the nearest tenth of a percent.

12. Rewrite without parentheses and simplify.

$$(u - 4)^2$$

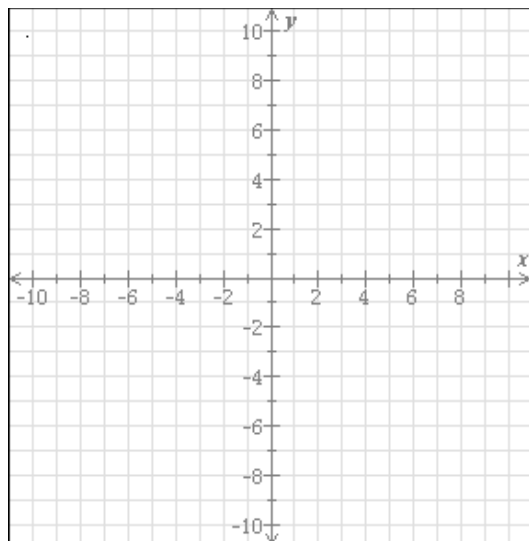
13. Multiply.

$$(u + 7)(u - 7)$$

Simplify your answer.

14. Graph the line.

$$y = -\frac{1}{4}x + 1$$



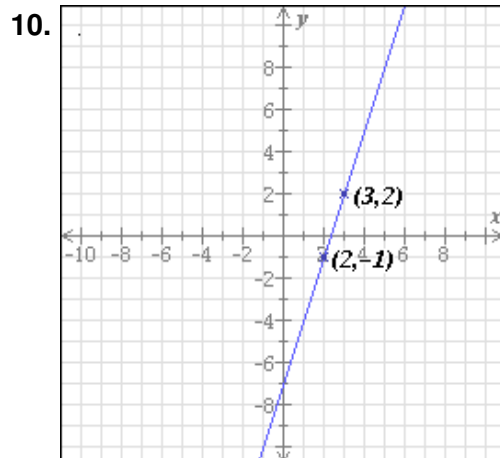
15. Solve for y .

$$3y - 8 = -20$$

Simplify your answer as much as possible.

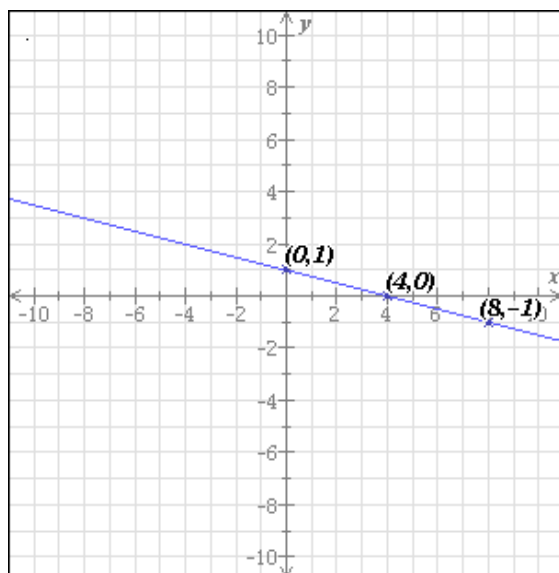
Final Prep Quiz 1 #1 Answers for class Beginning Algebra / Math 100 – Master No Book

1. 2.8 hours
2. \$21.96
3. horizontal line: $y = 1$
vertical line: $x = -8$
4. 45 minutes
5. 67 tickets
6. $(y - 2)(y - 8)$
7.
$$\left(-\frac{2}{3}\right)^0 = 1$$
$$-(5)^0 = -1$$
8. $3x^2 - 6x$
9. One possible answer is $(x, y) = (0, -3)$



11. 13.5%
12. $u^2 - 8u + 16$
13. $u^2 - 49$

14.



15. $y = -4$