

Name: _____

UNIT #1 Study Guide
COMMON CORE ALGEBRA I

Study Guide

PART I QUESTIONS: Answer all questions in this part. Make sure you show all of your work.

1. Which of the following is equivalent to $4(6x + 7)$

2. Which of the following is the value of the expression $\frac{-3+x}{4}$ when $x = -9$

3. If the expression $2+5x$ is equal to 42 for some value of x . Does $x = 8$?

4. Is binomial $-7+2x$ equivalent $2x-7$?

5. Fill in the blank $3x + x + \underline{\quad} = 9x$

6. The sum of $6-x$ and $4x-1$ is

[Redacted]

7. Which of the following equations illustrates the distributive property and commutative property?

[Redacted]

$$-2(x) = -2x$$

$$-2 + x = x - 2$$

8. Which of the following is $3(-6x)$

[Redacted]

9. The expression $2(x) + 5x + 3$ is equivalent to each of the following.

[Redacted]

10. When written in simplest form the expression $4(-6x+7) + 3(8-x)$

[Redacted]

Name: _____

PART II QUESTIONS: Answer all questions in this part. **Make sure you show all of your work.**

11. Find the **Sum** of $-2x$ with $8x$ in simplest form.

12. If n represents a number, **simplify the expression.** $-4(n-5)$

13. Which of the following is equivalent to the expression $\frac{8+x}{2}$ when $x = -4$

PART III QUESTIONS: Answer all questions in this part. **Make sure you show all of your work.**

14. Which of the following properties justifies the equivalence: _____ **Define the answer.**

$3+n = n+3$ and $6(x) = 6x$

If
15. $4x-7=-5$ for some value of x , is it true when $x = -3$? **Show substitution.**

_____, x does _____ equal -3
b/c the last equation is

-3 - _____ **Not** _____.

16. Of the following, which are equivalent?

$7 - n = n - 7$ or

$3(x + 4) = 3x + 12$

17. Combine like terms for the expression

$-3x - 5x + 7$

PART IV QUESTION: Answer the question in this part. Show your work.

18. What is following step to simplify the expression?

Expression $-3(4x - 1) + 7(5x - 2)$

Step #1 $-12x + 3 + 35x - 14$

19. Simplify the problem above.

-32