

Name _____

PRACTICE TEST : CHAPTERS 1,2,3

Elementary Algebra

Professor Freedman Test "P"

SHOW ALL WORK

Simplify the following expressions using the properties of signed numbers and the order of operations.

1a. $3 - 2 - (-5) + (-4)$ _____ 1b. $-4 + 6 - 8 - 1$ _____

2a. $4(-5)$ _____ 2b. $-4(-1)(-5)(2)$ _____

3a. -1^2 _____ 3b. $(-1)^2$ _____

4a. $\frac{4}{0}$ _____ 4b. $\frac{0}{9}$ _____

5. $(-4)(-5) - (-2)(3)$ _____

6. $3 - (7 - 5)^3 \cdot 3$ _____

7. $\frac{(-4)^2 - (-3)(2)}{-(-3)^2 + 8}$ _____

8. Combine like terms: $7y^2 - 6y - 3 - 2y^2 - 7$ _____

9. Evaluate $a(3b - c)$ when $a = 2$, $b = -4$, and $c = -3$ _____

10. Evaluate $\frac{3a - 3b}{2b + 3c}$ when $a = -4$, $b = -3$, and $c = 5$ _____

Solve for x in #11 - #18

11. $8x - 3 = 4x + 17$

$$12. \quad 3 - 2(x - 1) = 3(x - 5)$$

$$13. \quad 5x + 12 = 2x$$

$$14. \quad 5 - (4x + 3) = 4$$

$$15. \quad 7x - 5 + 2x = 8x + 9$$

$$16. \quad 7(2x - 1) - 5x = x + 25$$

$$17. \quad -4x = 28$$

$$18. \quad \frac{3}{4}x = 12$$

19. Solve, graph, and put in interval notation the solution set for $5 - 3x > -4$



20. Solve, graph, and put in interval notation the solution set for $2x + 9 \leq 4x - 2$



21. Solve for R: $I = prt$

22. Solve for m: $y = mx + b$

23. Solve for a: $ax + cy = e$

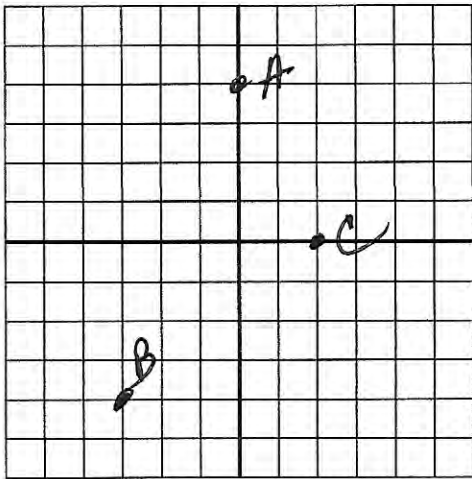
24. The length of a rectangle is 8 feet less than twice its width. If the perimeter is 62 feet, find the width?

25. Mrs. Smith is 5 years less than 4 times as old as her daughter. If the sum of their ages is 55 years, how old are Mrs. Smith and her daughter?

26. Brian earns \$150 more per month than Leah. If their monthly salaries total \$8550, what amount does each earn?

27. The sum of three consecutive integers is 69. What is the largest integer?

28. Give the coordinates of each of the points in the graph below.



A ()
B ()
C ()

29. Circle the ordered pairs that are solutions for the equation: $3x - y = 12$
(0, 12), (0, -12), (4, 0), (4, -3), (5, -3)

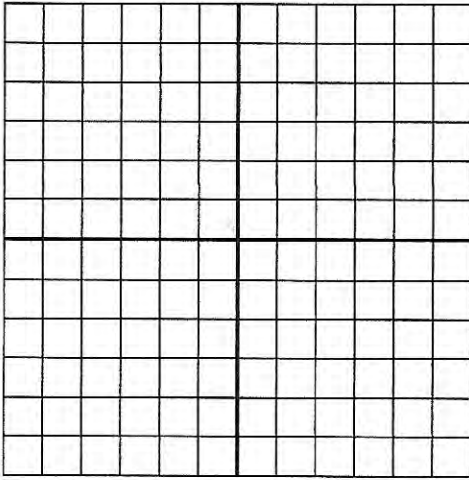
30. Complete the ordered pairs so that each is a solution for the equation $2x + 5y = 20$

(0,), (, 0), (5,), (, $\frac{2}{5}$)

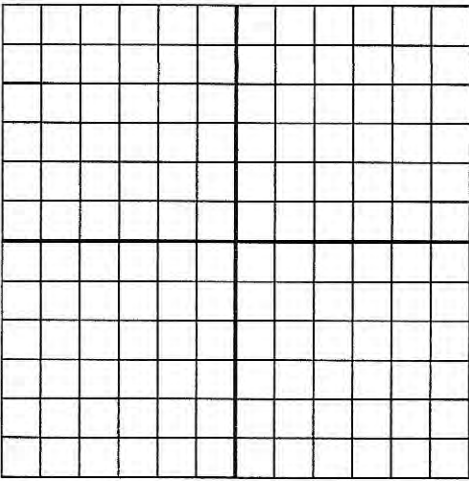
31. What is the coordinate of the x intercept for the line $2x - 6y = 12$

32. What is the coordinate of the y intercept for the line $3x + 9y = -27$

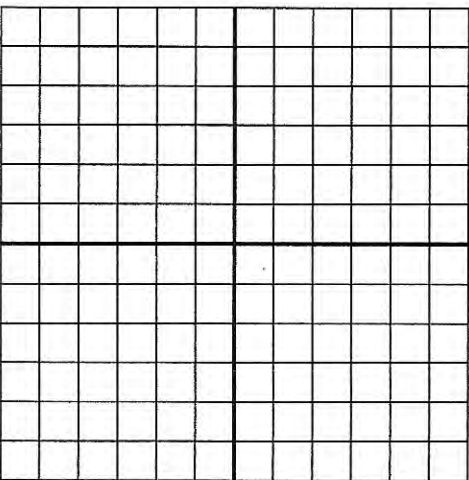
33. Graph the following equation using the intercepts and one other point: $2x - y = 4$



34. Graph the following equation: $y = 3x$



35. Graph the following equation using the intercepts and one other point: $3x - 2y = 12$



36. Find the slope of the line passing through the 2 points $(4, -6)$ and $(-2, -1)$