

Algebra 1 Summer Assignment 2018

Name: _____

As an incoming Algebra student, it is important that you are proficient in several skills from previous math courses. This assignment contains examples of the skills you are expected to know, such as solving equations, evaluating expressions, and graphing coordinates, as you enter your Algebra class this September.

DUE: SEPTEMBER 13TH, 2018

****Completion of this packet will count towards your first assessment grade****

****All students entering Algebra will be assessed on the skills reviewed in this assignment ****

SCORING RUBRIC

SCORE	CRITERIA
5	Student <u>completed packet</u> and <u>showed effort</u> throughout.
3	Student <u>partially completed</u> packet and showed <u>little effort</u> throughout.
0	Student <u>did not complete</u> packet or showed <u>no effort</u> throughout.

Skill #1: Simplify Algebraic Expressions

- **Objective: Students will completely simplify algebraic expressions using distributive property and/or combining like terms. Show your work.**

1. $4(x+4)+6$

3. $5-3(x+4)+6x-1$

2. $6(x-2)+3(x+4)$

4. $3x+2(x-5)$

Skill #2: Substitute and Evaluate

- **Objective: Students will substitute for one or more variables and completely simplify the resulting expression by following the established order of operations.**

Directions: Substitute and Evaluate. Show your work.

5. $x^2 - 5$ when $x = 3$

7. $2m^2 - 6$ when $m = 6$

6. $3x + 2y + 5$ when $x = 4$ and $y = -2$

8. $-5x + 3 + 2y^2$ when $x = 1$ and $y = 5$

Skill #3: Solve One-Variable Equations

- Objective: Students will use inverse operations to solve for the value of the unknown variable.

Directions: Solve for the value of the variable. Record non-integer solutions as reduced fractions. Show your work.

9. $x - 3.5 = 8$

11. $10 + 2x = 100$

10. $4x + 30 = 50$

12. $2 - 3x = 50$

Skill #4: Graph a Function using its Slope and y-intercept

- Objective: Students will graph a function using its slope and y-intercept.

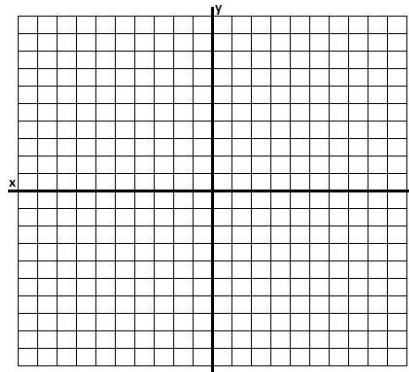
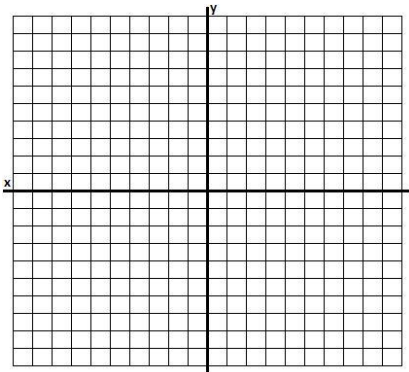
Directions: Use the form $y = mx + b$ to identify the slope and y-intercept. Then sketch the line.

13. $y = x + 2$

15. $y = 5$

$m = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$

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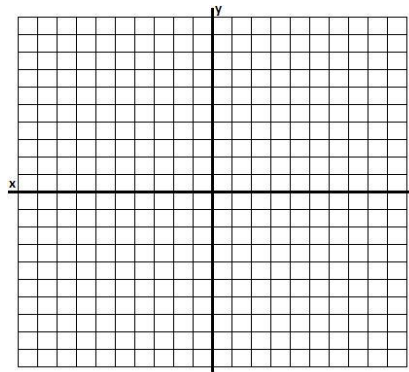
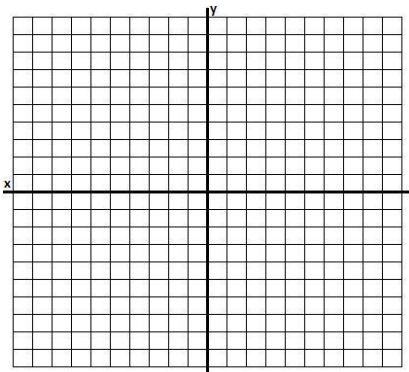


14. $y = \frac{3}{4}x - 3$

16. $y = \frac{1}{4}x$

$m = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$

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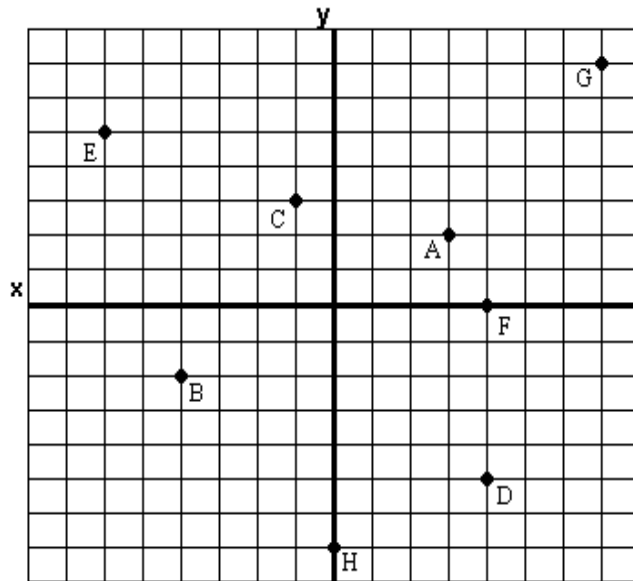


Skill #5: Plot Points in the Coordinate Plane

- **Objective:** Students will identify (x, y) coordinates and plot (x, y) coordinates in the coordinate plane.

Directions: Record the coordinates of each point as an ordered pair.

- 17. Point A: (,)
- 18. Point B: (,)
- 19. Point C: (,)
- 20. Point D: (,)
- 21. Point E: (,)
- 22. Point F: (,)
- 23. Point G: (,)
- 24. Point H: (,)



Directions: Plot and label each ordered pair on the coordinate plane.

- 25. Point A: (-6, 0.5)
- 26. Point B: (5, 0)
- 27. Point C: (-7, -1)
- 28. Point D: (4.5, 2)
- 29. Point E: (5, -2)
- 30. Point F: (0, -3)
- 31. Point G: (4, -4)
- 32. Point H: (0, 0)

