

Name:

Due Date:

Teacher:

Parent Sign:

Questions

1. Which quadrant is the point $(-3, 4)$ in?
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2. What are the coordinates of the point that is 5 units to the right and 2 units down from the origin?
3. What is the x-coordinate of the point $(-7, 0)$?
4. Which of these points lies on the x-axis: $(0, 4)$, $(3, 0)$, $(-2, -1)$?
5. Which point is in Quadrant IV: $(4, -5)$, $(-4, -5)$, $(-4, 5)$?
6. What is the distance along the x-axis between $(2, 3)$ and $(-4, 3)$?
7. Find the midpoint of $(1, 5)$ and $(5, -3)$.
8. If point B is at $(x, -2)$ and B is in Quadrant IV, what must be true about x?
9. Is $(2, 5)$ a solution to the equation $y = 2x + 1$? Show quickly why yes or no.
10. Is $(-1, -1)$ a solution to the equation $y = x + 2$?
11. Find y when $x = 3$ in $y = 4x - 7$.
12. Find x when $y = 11$ in $y = 3x + 2$.
13. List three integer solutions (ordered pairs) to $y = -2x + 4$.
14. Complete the values of y for $y = x + 3$ when $x = -2, 0, 4$.
15. Does the point $(4, -1)$ satisfy $2x + y = 7$?
16. Solve $3x + 2y = 12$ for y (express y = ...).
17. In $3x + 2y = 12$, find x when $y = 0$.
18. What is the slope and y-intercept of $y = -\frac{1}{2}x + 5$?
19. Which of these points are on $y = 2x - 3$: $(0, -3)$, $(1, -1)$, $(2, 1)$?
20. Give three solutions to the equation $y = 2$ (i.e., list three points on the horizontal line $y = 2$).
21. Solve $5x - y = 10$ for y.
22. Is $(3, 5)$ a solution to $5x - y = 10$?
23. For $y = -x + 2$, find y when $x = -1, 1, 3$.
24. By substitution, show whether $(2, 4)$ is a solution to $y = 2x$.
25. Find three integer solutions to $2x + 3y = 12$.
26. In $4x + y = 31$, find x when $y = 7$.
27. For the equation $y = 3x - 9$, what x gives $y = 0$?
28. Does $(-2, 8)$ satisfy $y = -4x$?
29. Complete y for $y = 2x$ when $x = -2, 0, 5$.
30. For $y = (\frac{1}{2})x + 2$, what is y when $x = 6$?



Math Worksheet for 8th Grade

Solutions to linear equations

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31. If $x + y = 10$, what are y when $x = 2, 5, 9$?
32. A line has slope 4 and passes through $(0, -2)$. Write its equation and find y when $x = 3$.
33. Each concert ticket costs \$7. If x students buy tickets, write total cost T as a function of x and find T when $x = 15$.
34. A taxi charges a \$3 base fee plus \$2 per mile. Write cost C for m miles and find C for 8 miles.
35. Pencils cost \$0.50 and erasers cost \$0.25. If $0.5x + 0.25y = 5$ (dollars), give two possible whole-number solutions (x, y) .
36. Perimeter P of a rectangle is $P = 2(l + w)$. If $l = 3x + 2$ and $w = x - 1$, write P in terms of x and simplify.
37. If $y = -x/3 + 6$, what is x when $y = 4$?
38. Complete y for $3x - y = 0$ when $x = -3, 0, 2$.
39. Which of these points is NOT on the line $y = -2x + 1$: $(1, -1), (0, 1), (2, -2)$?
40. Find the slope and y -intercept of $2x + 3y = 6$.
41. The sum of two numbers x and y is 18. List three ordered pairs of positive integers (x, y) that satisfy this.
42. Small smoothies are \$3 and large smoothies are \$5. If someone buys 6 smoothies costing \$26, how many small and how many large were bought?
43. For integer x between 0 and 4 inclusive, list all pairs (x, y) that satisfy $y = 6 - x$.
44. If $y = -2x + 7$, for which x does $y = 1$?
45. For $4x + 6y = 24$, find y when $x = 0, 2, 3$.
46. Find the equation (slope-intercept form) of the line through $(2, 3)$ and $(5, 9)$.
47. How many non-negative integer solutions (x, y) are there to $2x + y = 14$?
48. A phone plan costs \$10 base plus \$0.05 per minute. If a bill is \$16, how many minutes were used?
49. For $y = 0.5x - 1$, find x when $y = 2$ and when $y = -2$.
50. Two numbers add to 20. One number is 2 more than twice the other. Find the two numbers.