

Chapter 4
Form C

1. Determine if the ordered pair $\left(2, \frac{1}{4}\right)$ is a solution of $\frac{1}{8}x + 3y = 1$.

1. _____

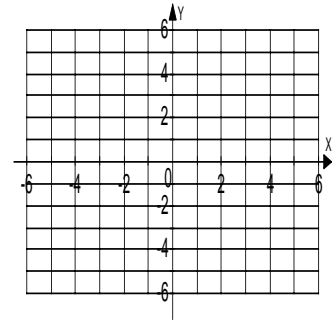
2. Complete the table of values for $y = \frac{2}{3}x + 1$.

2.

| x | $y = \frac{2}{3}x + 1$ | (x, y) |
|-----|------------------------|----------|
| 0 | | |
| -2 | | |
| -6 | | |

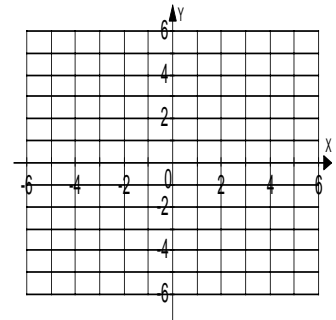
3. Graph the equation $y = \frac{2}{3}x + 1$ using the ordered pairs from problem 2.

3.



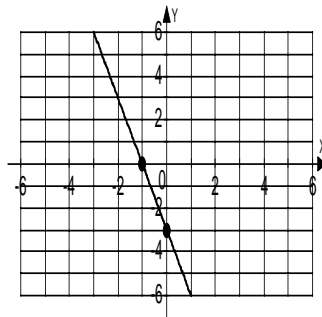
4. Graph $y = x + 3$.

4.



5. For the graph shown, identify the:

- (a) x -intercept
- (b) y -intercept.



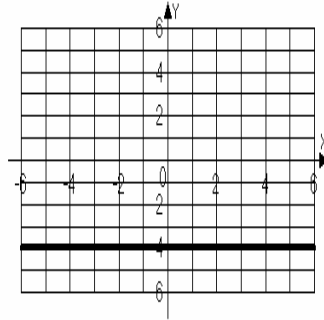
5a. _____

b. _____

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6. For the graph shown, identify the:
(a) x -intercept
(b) y -intercept.



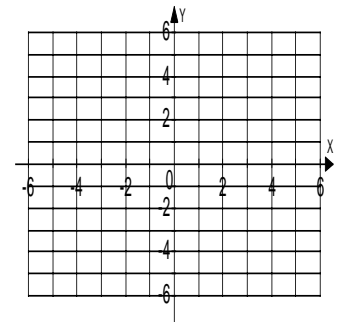
- 6a. _____
b. _____

7. For the equation $6x - 4y = 10$, identify the:
(a) x -intercept
(b) y -intercept.

- 7a. _____
b. _____

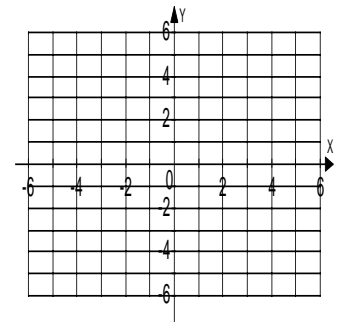
8. Graph the equation $6x - 4y = 10$ using the x and y - intercepts found in problem 7.

8.



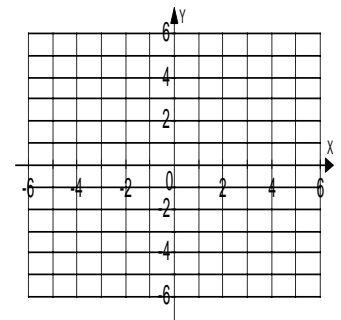
9. Graph the equation $-3x - y = 2$.

9.



10. Graph the equation $y = 2x$.

10.

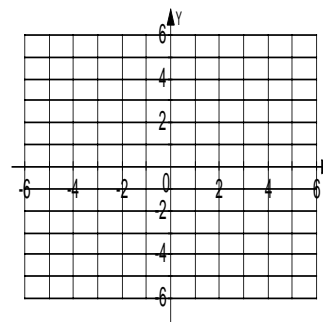


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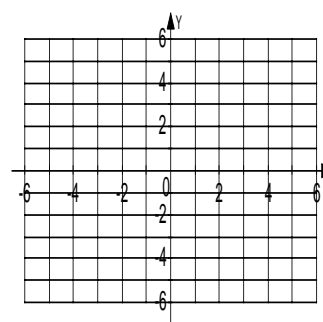
11. Graph the equation $x = 3$.

11.



12. Graph the equation $y = -4$.

12.



For problems 13 – 14, calculate the slope of the line passing through the given points.

13. $(-4, 1)(3, -5)$

13. _____

14. $\left(4, \frac{2}{3}\right)\left(1, \frac{2}{3}\right)$

14. _____

15. For the equation $5x - 4y = 8$, find the:

15a. _____

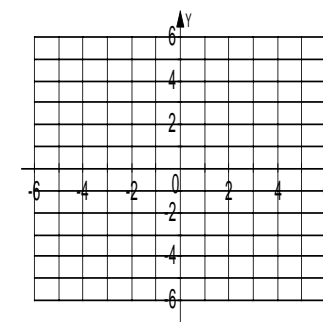
a. slope

b. y-intercept

b. _____

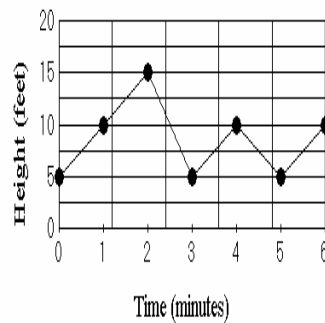
16. Use the slope and y-intercept found in problem 15 to graph $5x - 4y = 8$.

16.



17. Are the lines $2x - 4y = 6$ and $4x - 8y = 6$ parallel? 17. _____
18. For the line passing through $(2, 0)$ and $(5, 3)$ write the equation of the line in: 18a. _____
 (a) point-slope form. b. _____
 (b) slope-intercept form.
19. A plain cheese pizza costs \$8. Each additional topping costs \$0.75. Write the equation of the line that models the cost, y , in dollars, of a pizza with x toppings. 19. _____
20. For the equation you found in problem 18, what does the ordered pair $(2, 9.50)$ represent? 20. _____

The following graph shows the height y of a canary, x minutes after its escape from its cage. Use the graph for problems 21 –22.



21. a. What is the y -intercept? 21. _____
 b. In terms of time and height, interpret the meaning of this intercept.
22. a. At what time did the maximum height occur? 22. _____
 b. What was the maximum height?
23. The equation of a line is given as $y = \frac{2}{5}x + 9$. Find the slope 23a. _____
 that is (a) parallel to the line with the given equation and
 (b) perpendicular to the line with the given equation. b. _____

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24. Find the equation of the line in (a) point-slope form and (b) slope-intercept form that passes through (2, 5) and is parallel to $6x - 4 = 8$.

24a. _____

b. _____

25. Find the equation of the line in (a) point-slope form and (b) slope-intercept form that passes through (1, 1) and is perpendicular to $\frac{1}{9}x + 11$.

20a. _____

b. _____