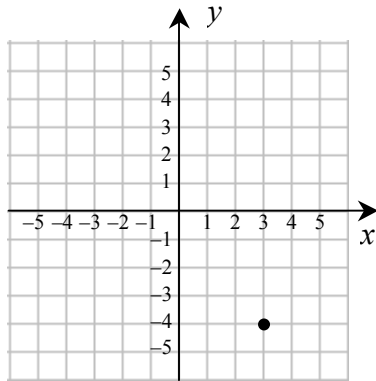


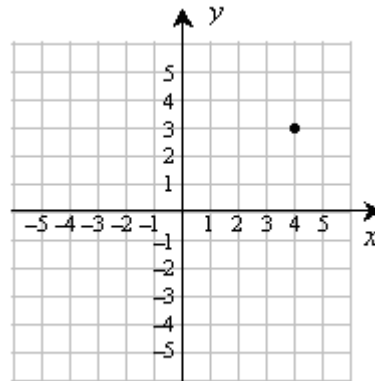
Name: _____ Date: _____

1. Plot the point $(-4, 3)$ on the Cartesian plane.

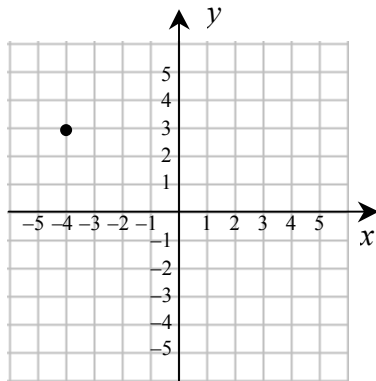
A)



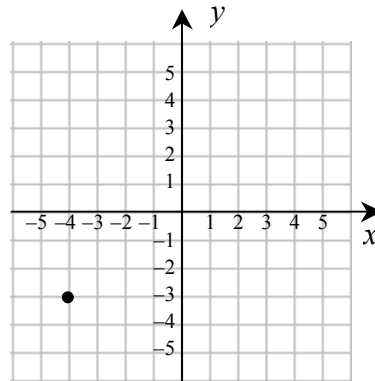
C)



B)

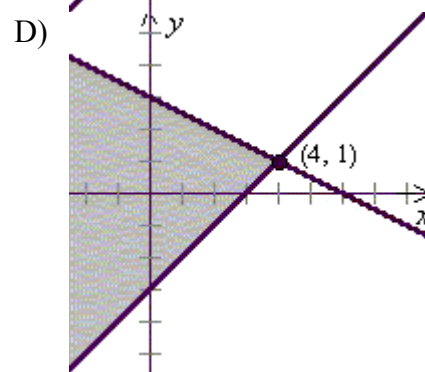
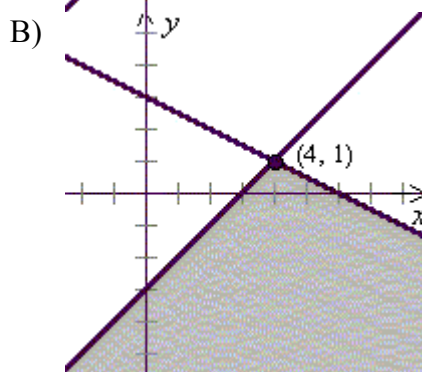
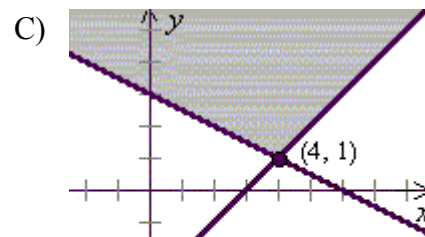
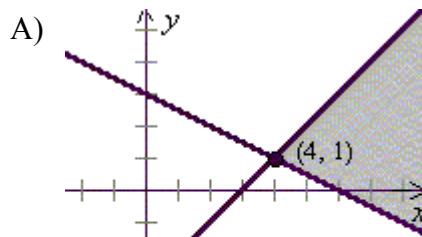


D)

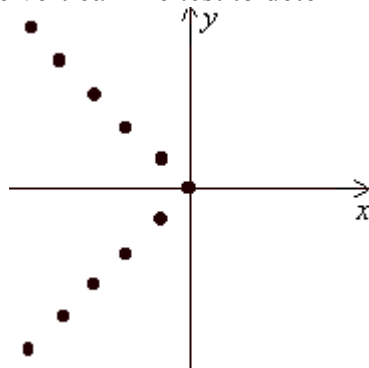


2. Find the solution set for the system of linear inequalities.

$$\begin{aligned} x - y &\leq 3 \\ x + 2y &\leq 6 \end{aligned}$$

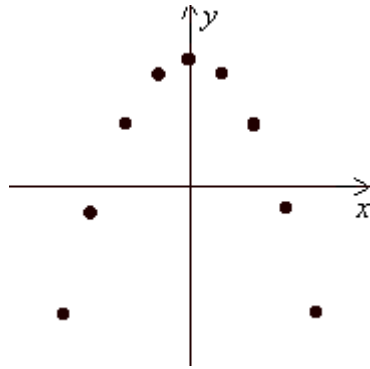


3. Use the vertical line test to determine whether or not the relation is a function.



A) No, the relation is not a function. B) Yes, the relation is a function.

4. Use the vertical line test to determine whether or not the relation is a function.



A) No, the relation is not a function. B) Yes, the relation is a function.

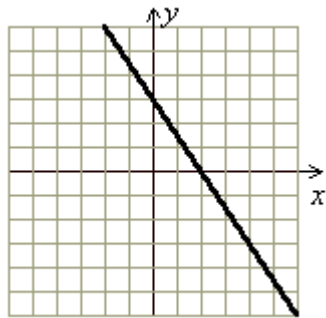
5. Find the coordinates of the x -intercept.

$$-x - 2y = 6$$

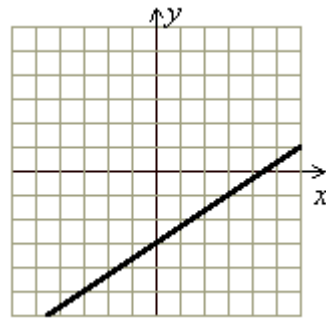
A) $(0, -6)$ B) $(-6, 0)$ C) $(0, -3)$ D) $(-3, 0)$

6. Graph $3x + 2y = 6$.

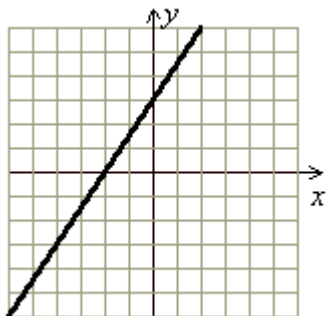
A)



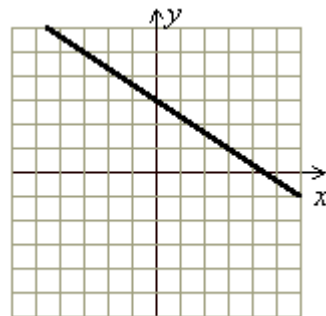
C)



B)



D)



7. The amount of revenue a company makes per day by selling x items is given by the function $f(x) = 14x - 0.2x^2$. How many items should be sold if the company wants to maximize their profit?

A) 35 items B) 30 items C) 40 items D) 70 items

8. Find the vertex of the parabola.

$$y = -4x^2 - 16x - 11$$

A) (5, 2) B) (2, 5) C) (-2, 5) D) (5, -2)

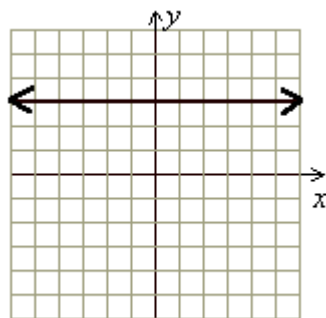
9. Write the equation in the slope-intercept form.

$$4x - 10y = 11$$

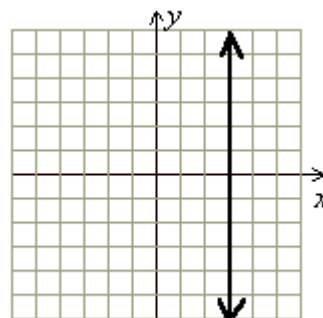
A) $y = \frac{2}{5}x - 11$ B) $y = -\frac{2}{5}x + \frac{11}{10}$ C) $y = -\frac{2}{5}x + 11$ D) $y = \frac{2}{5}x - \frac{11}{10}$

10. Graph $x = 3$.

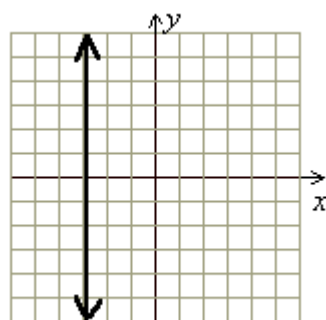
A)



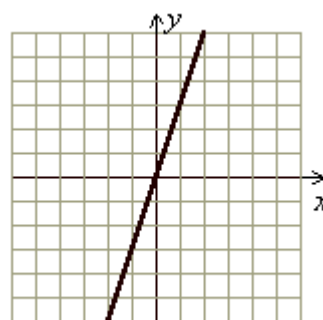
C)



B)



D)



11. Find the y -intercept.
 $-2x - y = -10$

A) (10, 0) B) (5, 0) C) (0, 5) D) (0, 10)

12. Find the slope of the line passing through the points $(-3, -10)$ and $(4, 5)$.

A) $-\frac{15}{7}$ B) $-\frac{7}{15}$ C) $\frac{15}{7}$ D) $\frac{7}{15}$

13. Evaluate the function $f(x) = -3x^2 - 5x + 4$ for $x = 2$.

A) -16 B) -19 C) -18 D) -17

14. Determine whether the system is consistent, inconsistent, or dependent.

$$\begin{aligned}3x - 3y &= -9 \\9x - 9y &= -27\end{aligned}$$

A) Consistent B) Dependent C) Inconsistent

15. The difference between the ages of two friends is 2 years. The sum of their ages is 74 years. Find the age of the older friend.

A) 38 B) 36 C) 39 D) 37

16. Plot $(0, 2)$ on the Cartesian plane.

17. Graph $y = 4$.

18. Evaluate the function $f(x) = -2x - 4$ for $x = 3$.

19. Graph the linear inequality.
 $-3x + y > 0$

20. Find the domain of the relation.
 $\{(-1, 2), (0, 3), (1, 4), (2, 5)\}$

21. Graph $y = \left(\frac{1}{2}\right)^x$.

22. Graph $y = \left(\frac{1}{3}\right)^{x+1}$.

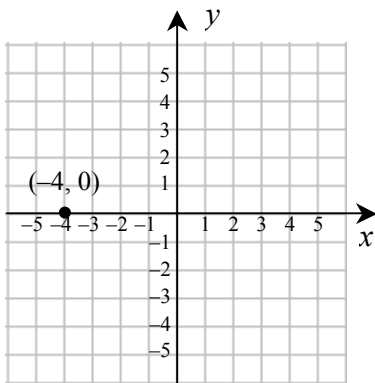
23. The difference between the ages of two friends is 11 years. The sum of their ages is 59 years. Find their ages.

24. Graph $y = \left(\frac{1}{2}\right)^{x-1}$.

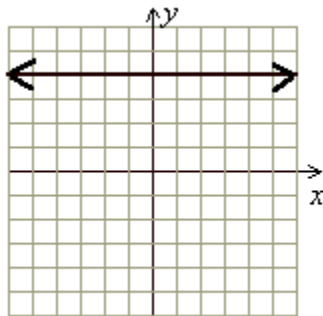
25. Graph the linear inequality.
 $x < -2$

Answer Key

- 1. B
- 2. D
- 3. A
- 4. B
- 5. B
- 6. A
- 7. A
- 8. C
- 9. D
- 10. C
- 11. D
- 12. C
- 13. C
- 14. B
- 15. A
- 16.

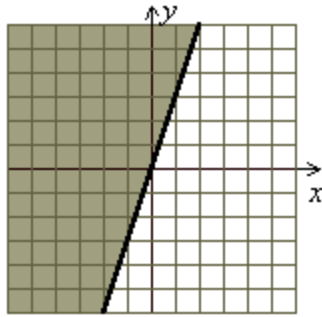


- 17.



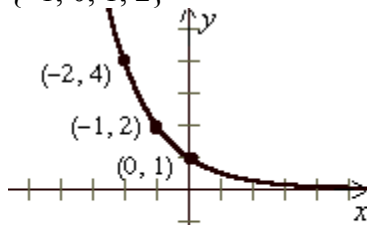
- 18. -10

19.

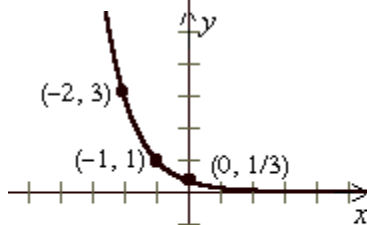


20. $\{-1, 0, 1, 2\}$

21.

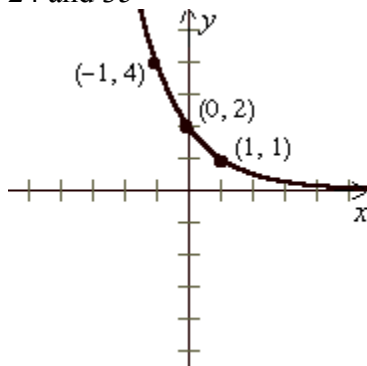


22.



23. 24 and 35

24.



25.

