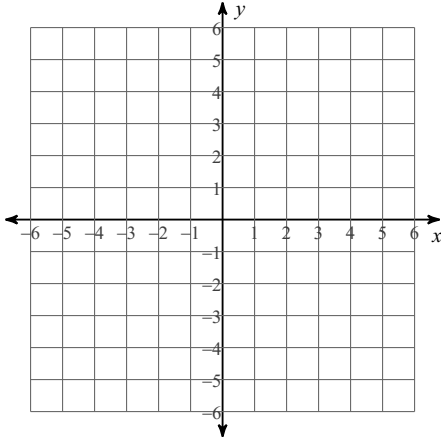


## Unit 02 - 03 - Test Review

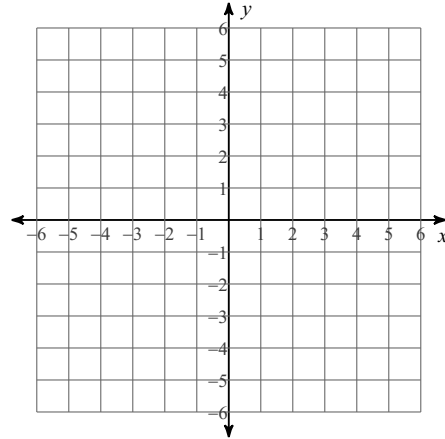
Date \_\_\_\_\_ Period \_\_\_\_\_

**Sketch the graph of each line.**

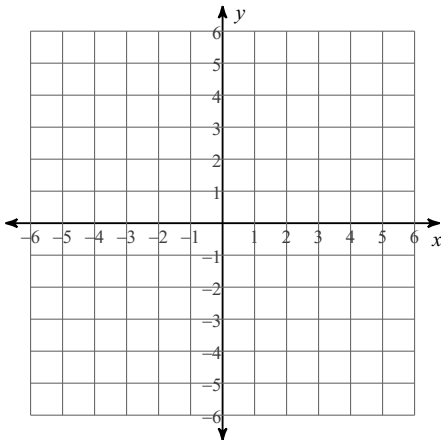
1)  $y = \frac{9}{2}x + 5$



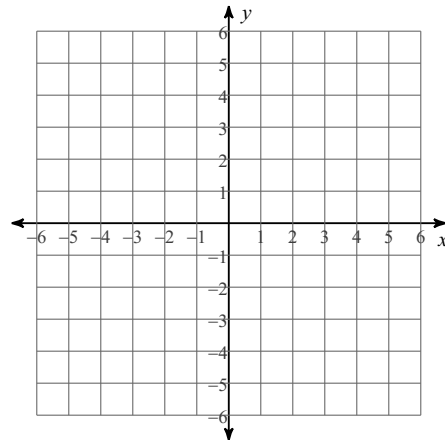
2)  $y = 2x - 3$



3)  $3x - 5y = -20$



4)  $2x + 5y = 0$



**Write the slope-intercept form of the equation of the line through the given point with the given slope.**

5) through:  $(3, -4)$ , slope =  $-3$

**Write the slope-intercept form of the equation of the line through the given points.**

6) through:  $(0, -2)$  and  $(-5, -1)$

**Write the slope-intercept form of the equation of the line described.**

7) through:  $(3, -1)$ , parallel to  $y = -\frac{5}{3}x - 4$

8) through:  $(-4, -1)$ , perp. to  $y = -x - 1$

**Evaluate each function.**

9)  $h(x) = 3x + 4$ ; Find  $h(-9)$

10)  $w(n) = n^2 + 4n$ ; Find  $w(n - 3)$

**Perform the indicated operation.**

11)  $f(x) = -2x + 1$   
 $g(x) = -2x + 5$   
 Find  $(f + g)(-4)$

12)  $g(n) = 3n + 5$   
 $h(n) = -2n^3 + 2n$   
 Find  $(g - h)(n)$

13)  $g(a) = 4a - 2$   
 $h(a) = a^3 - 3a$   
 Find  $(5g + 4h)(a)$

14)  $f(t) = t - 2$   
 $g(t) = t^2 + 2t$   
 Find  $(f \cdot g)(t)$

15)  $g(x) = -2x^2 - 4$   
 $f(x) = -x - 5$   
 Find  $(g \circ f)(-9)$

16)  $f(t) = 3t$   
 $g(t) = t^2 + 5t$   
 Find  $(f \circ g)(t)$

**Graph the following Piecewise Function, and then evaluate at the given values.**

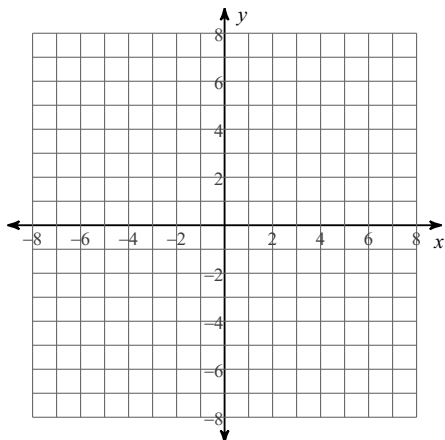
$$17) f(x) = \begin{cases} 3, & x \leq -2 \\ -2x - 1, & -2 < x \leq 3 \\ x - 4, & x > 3 \end{cases}$$

18) Find:

$$f(-3)$$

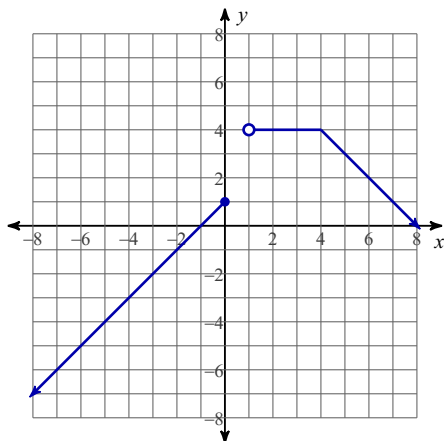
$$f(0)$$

$$f(3)$$



Write a piecewise function for the following graph, then evaluate at the given values.

19)



20) Find:

$$f(-3)$$

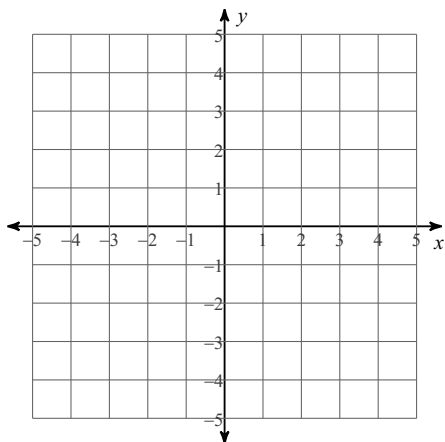
$$f(1)$$

$$f(3)$$

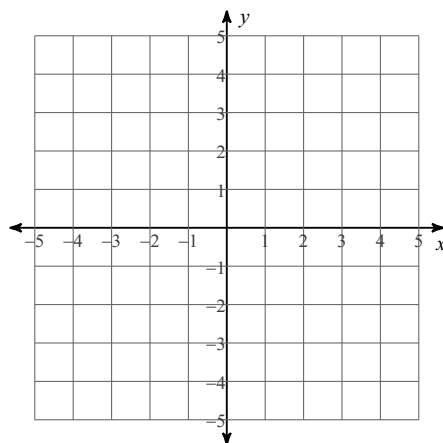
Solve each system by graphing.

$$21) \quad y = \frac{5}{3}x - 4$$

$$y = -\frac{1}{3}x + 2$$



$$22) \quad \begin{aligned} x - y &= 2 \\ 5x - y &= -2 \end{aligned}$$



Solve each system by substitution.

$$23) \quad \begin{aligned} y &= -3x + 12 \\ -x + 5y &= -4 \end{aligned}$$

$$24) \quad \begin{aligned} 5x - 5y &= 20 \\ 4x + 2y &= -14 \end{aligned}$$

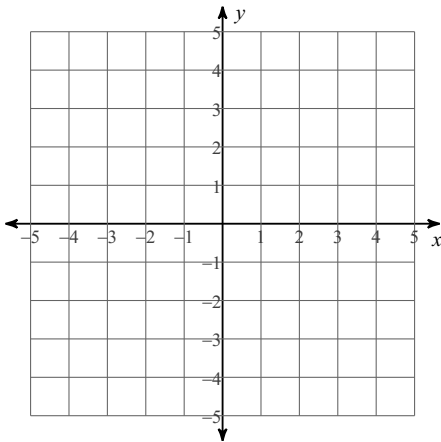
**Solve each system by elimination.**

25)  $3x + 2y = 19$   
 $-6x + 4y = 2$

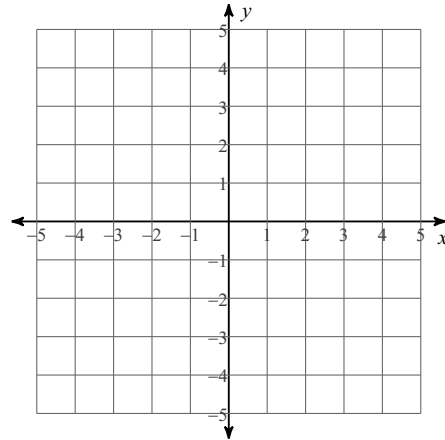
26)  $9x + 3y = 6$   
 $2x + 8y = -6$

**Sketch the solution to each system of inequalities.**

27)  $y > x - 1$   
 $y \geq -\frac{1}{3}x + 3$



28)  $x - y \geq -2$   
 $2x + y \leq -1$



29) The school that Ndiba goes to is selling tickets to a choral performance. On the first day of ticket sales the school sold 13 adult tickets and 5 student tickets for a total of \$171. The school took in \$111 on the second day by selling 8 adult tickets and 5 student tickets. What is the price each of one adult ticket and one student ticket?

30) Nicole and Krystal each improved their yards by planting daylilies and ivy. They bought their supplies from the same store. Nicole spent \$143 on 7 daylilies and 11 pots of ivy. Krystal spent \$208 on 14 daylilies and 9 pots of ivy. Find the cost of one daylily and the cost of one pot of ivy.

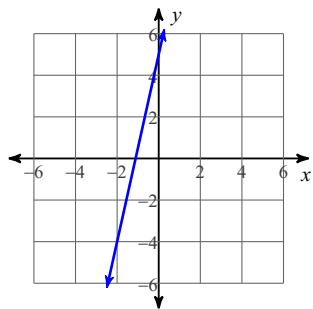
**Solve each system by elimination.**

31)  $6a + b + 6c = -17$   
 $-5a - 6b - 2c = 22$   
 $-2a + b + 2c = -25$

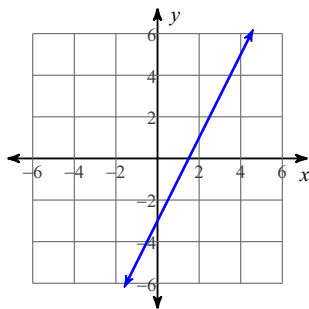
32)  $x - 2y - 3z = -11$   
 $6y - 6z = 18$   
 $-x - 4y - 6z = -22$

## Answers to Unit 02 - 03 - Test Review (ID: 1)

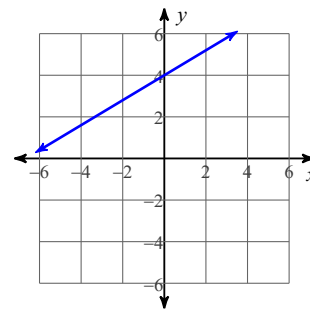
1)



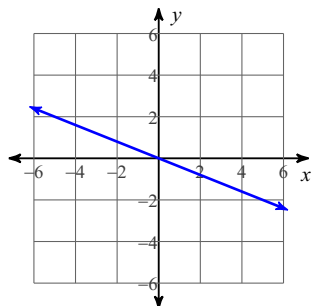
2)



3)



4)



5)  $y = -3x + 5$

6)  $y = -\frac{1}{5}x - 2$

7)  $y = -\frac{5}{3}x + 4$

8)  $y = x + 3$

9)  $-23$

10)  $n^2 - 2n - 3$

11) 22

12)  $2n^3 + n + 5$

13)  $4a^3 + 8a - 10$

14)  $t^3 - 4t$

15)  $-36$

16)  $3t^2 + 15t$

17)

18) 3, -1, -7

19)

20) -2, undefined, 4

21) (3, 1)

22) (-1, -3)

23) (4, 0)

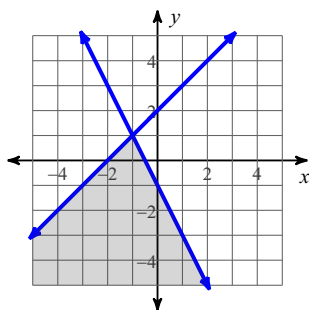
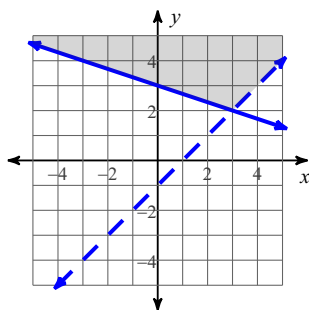
24) (-1, -5)

25) (3, 5)

26) (1, -1)

27)

28)



29) adult ticket: \$12, student ticket: \$3

30) daylily: \$11, pot of ivy: \$6

31) (4, -5, -6)

32) (0, 4, 1)