

# Coordinate Geometry

Name \_\_\_\_\_



- What is the slope of the line whose equation is  $3x - 4y - 16 = 0$ .  
 [1]  $3/4$                       [2]  $4/3$                       [3]  $3$                       [4]  $-4$
- What is the equation of a line passing through the points  $(1,2)$  and  $(-2,5)$ ?  
 [1]  $y = x + 3$               [2]  $y = -x + 3$               [3]  $y = (7/3)x + 1$               [4]  $y = 3x + 3$
- Which of the following is the equation of a line with a slope of 0 and passing through the point  $(4,6)$ ? [1]  $x = 4$     [2]  $x = -4$     [3]  $y = 6$               [4]  $y = -6$
- What is the slope of a line passing through the points  $(3,5)$  and  $(-2,6)$ ?  
 [1]  $-1/5$                       [2]  $-1$                       [3]  $-5$                       [4]  $11/5$
- A horizontal line has a slope of [1]  $0$     [2]  $1$     [3]  $-1$     [4] undefined

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

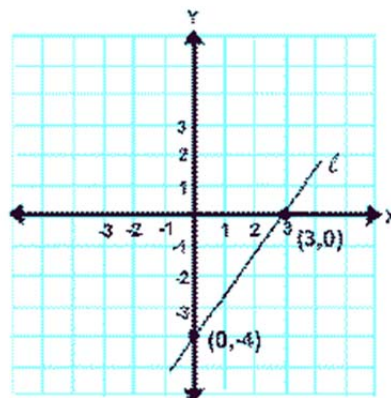
8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

- What is the slope of the line shown in the figure at the right?

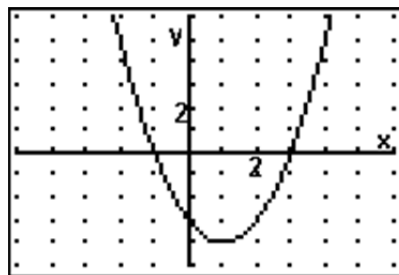
- [1]  $4/3$     [2]  $3/4$     [3]  $-(3/4)$     [4]  $-(4/3)$



- What are the coordinates of the y-intercept of the equation  $y - 3x = 5$ ?  
 [1]  $(0,3)$                       [2]  $(0,-3)$                       [3]  $(0,5)$                       [4]  $(0,-5)$
- The slope of a vertical line is [1]  $0$     [2]  $1$     [3]  $-1$     [4] undefined
- Find the slope of a line perpendicular to the line whose equation is  $3y + 2x = 6$ .  
 [1]  $2$                       [2]  $-2$                       [3]  $-3/2$                       [4]  $3/2$

- What are the roots of this parabola?

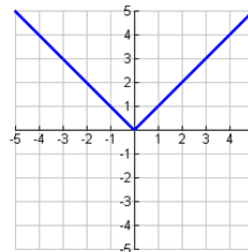
- [1]  $3$  and  $1$                       [2]  $1$  and  $0$   
 [3]  $3$  and  $-1$                       [4]  $-4$  and  $0$



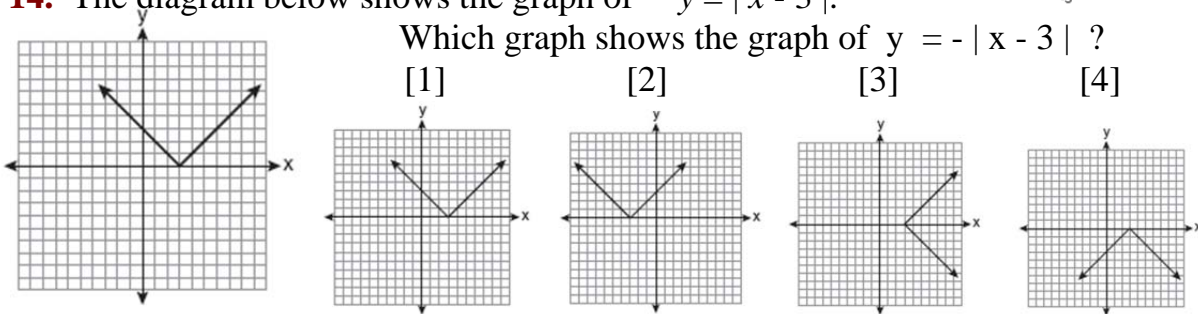
11. What is the equation of the axis of symmetry of the graph  $y = 3x^2 + 12x - 2$  ?  
 [1]  $x = -2$       [2]  $x = 2$       [3]  $y = -2$       [4]  $y = 2$

12. Which equation below could depict exponential decay?  
 [1]  $y = 3^x$       [2]  $y = 1.4^x$       [3]  $y = 0.5^x$       [4]  $y = 2^x$

13. What type of function is graphed here?  
 [1] quadratic      [2] absolute value      [3] linear  
 [4] exponential



14. The diagram below shows the graph of  $y = |x - 3|$ .  
 Which graph shows the graph of  $y = -|x - 3|$  ?



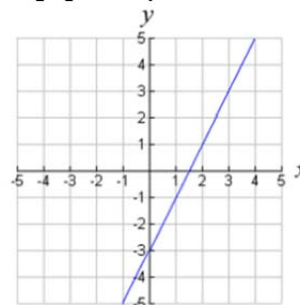
15. Find the equation of the line parallel to the line whose equation is  $y = -3x + 5$  and whose  $y$ -intercept is  $-5$ .  
 [1]  $y = -3x - 5$       [2]  $y = 3x - 5$       [3]  $y = (1/3)x - 5$       [4]  $y = 3x - (1/5)$

16. Write an equation for a line passing through the points  $(c, 2b)$  and  $(c, 3b)$ .  
 [1]  $y = cx - b$       [2]  $y = -cx + b$       [3]  $x = 2b$       [4]  $x = c$

17. Which is the equation of a line whose slope is undefined?  
 [1]  $x = -5$       [2]  $y = 7$       [3]  $x = y$       [4]  $x + y = 0$

18. What is the equation of the line graphed at the right?

[1]  $y = \frac{1}{2}x - 3$       [2]  $y = 2x - 3$       [3]  $y = -\frac{1}{2}x - 3$   
 [4]  $y = -2x - 3$



19. Which of these equations represents a line parallel to the line  $2x + y = 6$ ?

[1]  $y = 2x + 3$       [2]  $y - 2x = 4$       [3]  $2x - y = 8$       [4]  $y = -2x + 1$

20. Find the equation of the line that has a slope of  $-2$  and a  $y$ -intercept of  $-9$ .

[1]  $y = 2x - 9$       [3]  $y = -2x - 9$       [2]  $y = 2x + 9$       [4]  $y = -2x + 9$

- 11. \_\_\_\_\_
- 12. \_\_\_\_\_
- 13. \_\_\_\_\_
- 14. \_\_\_\_\_
- 15. \_\_\_\_\_
- 16. \_\_\_\_\_
- 17. \_\_\_\_\_
- 18. \_\_\_\_\_
- 19. \_\_\_\_\_
- 20. \_\_\_\_\_