Linear Functions

- 1. What is the slope of the line given by: $y = \frac{2}{3}x 3?$
- 2. What is the equation of the graph below in slope-intercept form?



- 3. What is the y-intercept of the line y = 5 3x?
- 4. What is the equation of the line with slope -3 and y-intercept 7 in slope-intercept form?
- 5. What is the slope of the line segment joining points A(3,-4) and B(3,5)? Use the graph below to aid you in your answer.



6. What is the slope of the line graphed below?



7. Graph the line. State the slope and y-intercept.

$$y = 3x - 2$$



8. Draw the line through point A(-2, 4) with slope $-\frac{3}{5}$.





- 10. A quadrilateral has vertices A(0, 4), B(6, 6), C(8, 3), and D(2, 1) Is quadrilateral ABCD a parallelogram?
- 11. Triangle ABC has vertices A(-3, 7), B(-1, 5) and C(-5, 2). Is ABC a right triangle?
- 12. What are the slope and point which formed the equation y + 1 = 3(x 2)?
- 13. Write the slope-point form of the equation of the line passing through point A(-2, 4) with slope m=-5.
- 14. Find the slope of the equation 6x + 4y 5 = 0
- 15. Find the x and y intercepts of the equation 3x 4y 24 = 0.
- 16. Write the equations in general form:
 - A) y = 2x 1B) $y = -\frac{1}{3}x + 4$ C) $y + 1 = -\frac{2}{5}(x - 2)$
- 17. Write the equation in slope-intercept form.

$$3x + 4y - 16 = 0$$