# Algebra Semester 1 Review #2

Name _____

**Find the slope of the line that passes through the given points.**

1. (2, –4) and ( -3, 5)          2. (2, 8) and (2, 6)                    3. (1, -3) and ( 4, -3)

**Find the equation of the line given the following information.**

4. slope $= -2$, y-intercept (0, 6)                    5. slope $= \dfrac{-1}{2}$, contains (-4, 3)

6. contains the points (1, 3) and (-4, 5)                    7. contains the points (-2,4) and (6,0)

8. contains the point (4,-7) and is parallel
   to the line $y = -2x - 5$

9. contains the point (6,7) and is
   perpendicular to $y = -3x + 2$

10. contains the point ( 4, 10) and is parallel
    to the line $y = 3x + 1$

11. contains the point ( 3, 6) and is
    perpendicular to $y = \dfrac{-3}{2}x + 1$

**Give the slope and y-intercept for each.**

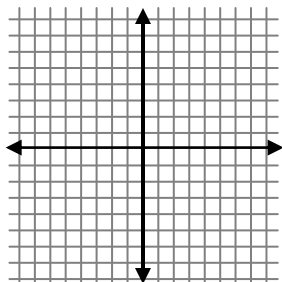12. $y = 2x - 5$                    13. $2x - 3y = 9$                    14. $x - 2y = 10$

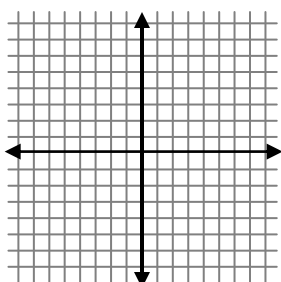**Tell if the given point is on the given line.**

15. ( 2,1); $y = 2x - 3$                    16. (1, -1); $y = 7x - 6$          17. (0, 3); $2x + y = 4$
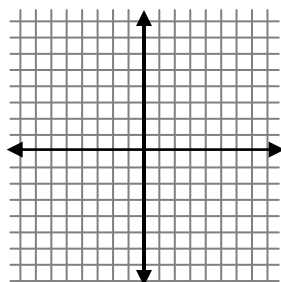
**Graph each equation.**

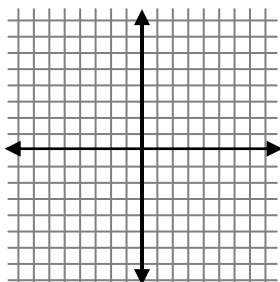18. $y = 2x - 3$

19. $y = \dfrac{-1}{3}x + 1$

20. $2x - y = 5$
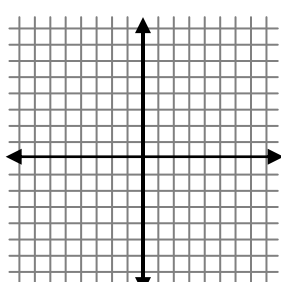
**Graph each inequality.**
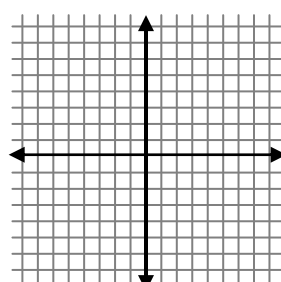
21. $y < 2x - 4$

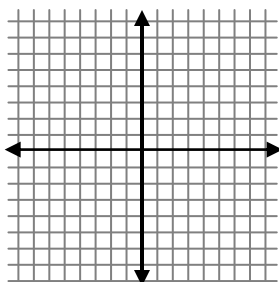22. $2x - 5y > 15$

23. $x - 2y \geq 8$

**Solve each system by graphing.**

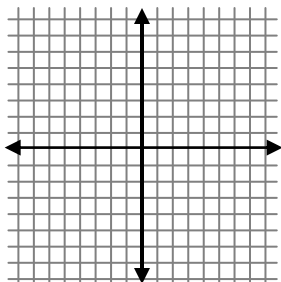24. $y = 4x - 5$

    $y = -3x + 2$

25. $y = \dfrac{1}{2}x + 3$

    $y - x = 1$

26. $x + y = 2$

    $y = 2x - 7$