MAT 090 - Practice Exam - Chapter 4 - S12

Name: _____ Date: _____ Start: _____ Stop: _____

SHOW ALL WORK. Problems with insufficient work will not recieve full credit, even if the answer is correct.

1. Give the coordinates for the following points (A-E) **AND** plot the points (F-J) on the graph provided. Be sure to label the points (F-J) on the graph.

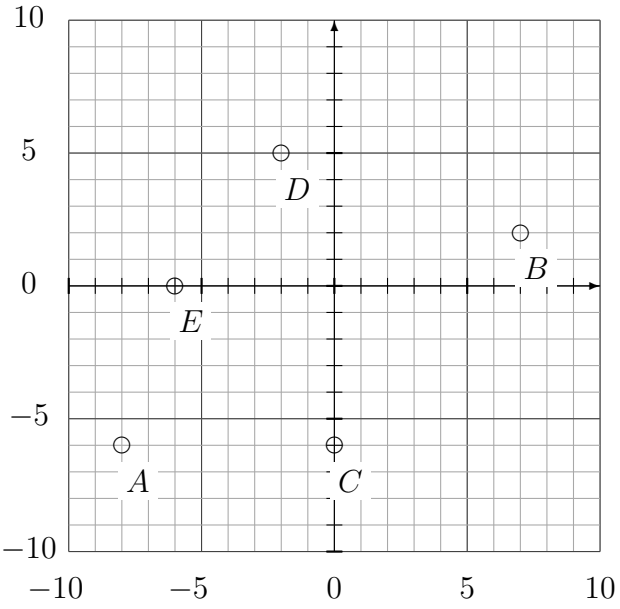
A. _____ *F.* (8,-5)

B. _____ *G.* (-9,-5)

C. _____ *H.* (0,5)

D. _____ *I.* (9,0)

E. _____ *J.* (-3,-7)



2. Circle the ordered pair(s) that are solutions for the following equation. Show work to receive full credit. There may be more than one correct answer.

$3x - 2y = 12$ (2,3), (-4,-12).

3. Circle the ordered pair(s) that are solutions for the following equation. Show work to receive full credit. There may be more than one correct answer.

$-3x + 5y = 15$ (5,6), (0,-3).

4. Complete the ordered pairs for the following equation. Show work to receive full credit.

   $-2x - 4y = -8$ (2, ___) (___, -4)

5. Complete the ordered pairs for the following equation. Show work to receive full credit.

   $3x + 6y = 18$ (4, ___) (___, 3)

6. Find four solutions for the following equation. **ALL** solutions should be **INTEGER** values. No credit will be given for solutions containing fractions. Show work to receive full credit.

   $4x - 8y = 16$

   6(a) _____

   6(b) _____

   6(c) _____

   6(d) _____

7. Find four solutions for the following equation. **ALL** solutions should be **INTEGER** values. No credit will be given for solutions containing fractions. Show work to receive full credit.

   $-2x + 3y = -12$

   7(a) _____

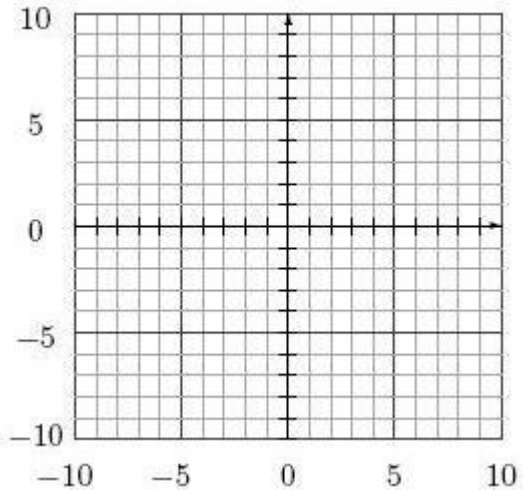
   7(b) _____

   7(c) _____

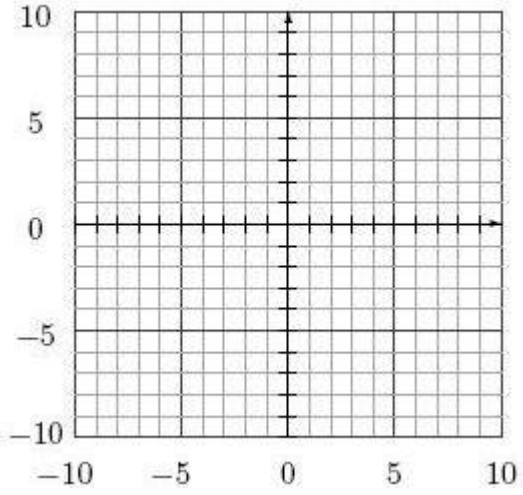
   7(d) _____

Determine the slope (m) and y-intercept (b) for each of the following equations. Then graph each line using any desired method. Show work to receive full credit.

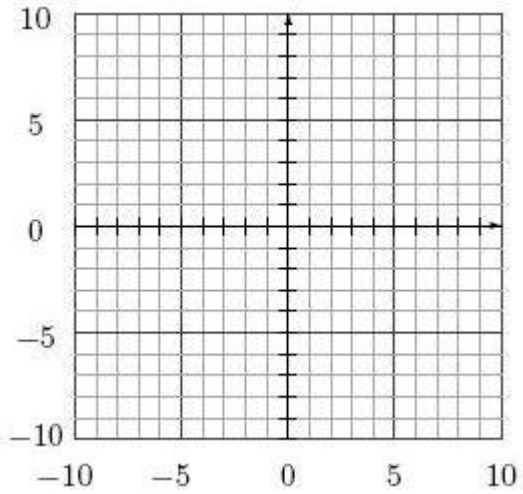
8. $y = -\frac{2}{5}x - 2$ m = _____ b = _____



9. $y = -7$ m = _____ b = _____

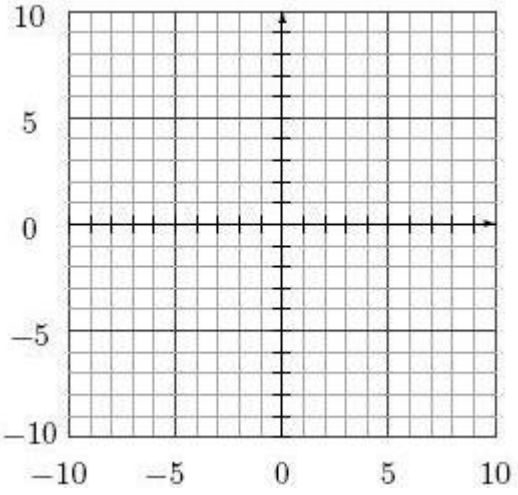


10. $2x + 3y = 12$ m = _____ b = _____

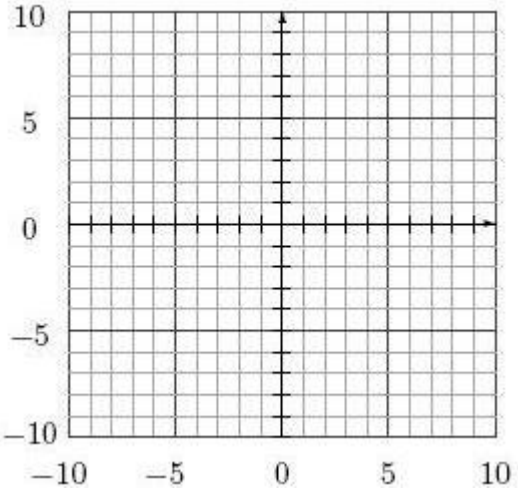


Determine the slope (m) and y-intercept (b) for each of the following equations. Then graph each line using any desired method. Show work to receive full credit.

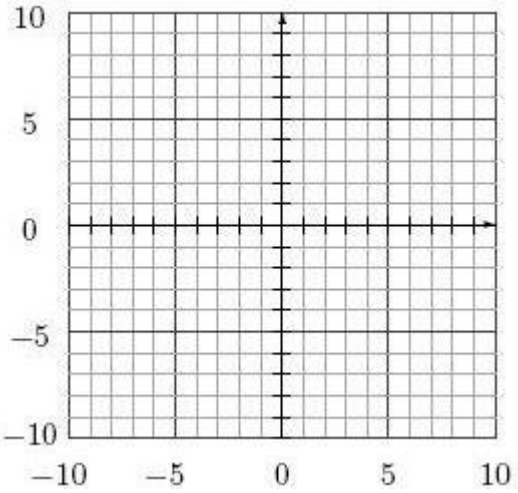
11. $x = 4$ m = _____ b = _____



12. $2y - 4x = -8$ m = _____ b = _____

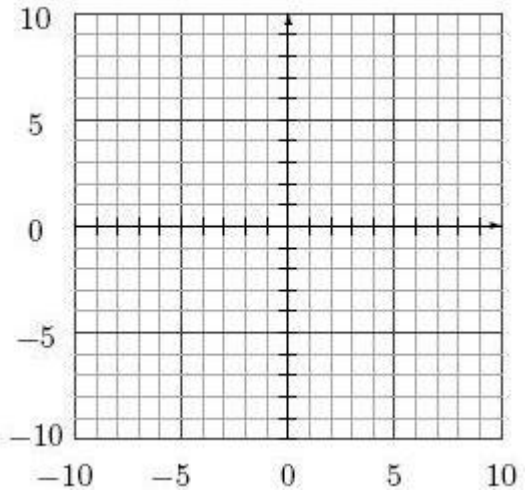


13. $y = 4x$ m = _____ b = _____

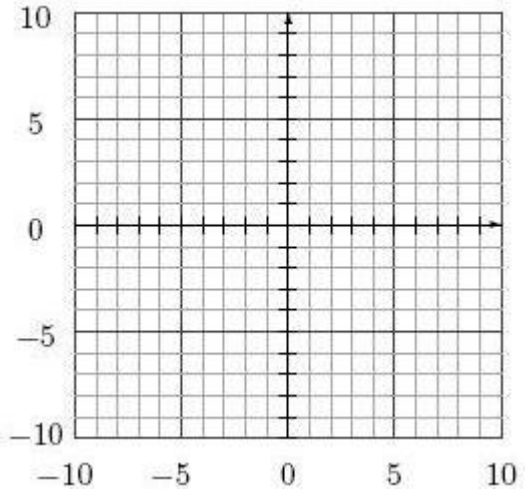


Write the equation of the line in **Slope-Intercept**. Then graph each line. Show work to receive full credit.

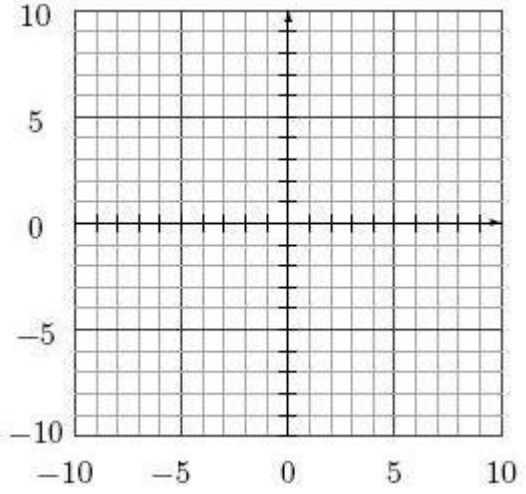
14. m = $-\frac{2}{3}$, b = 4 14. _____



15. m = 0, b = 3 15. _____

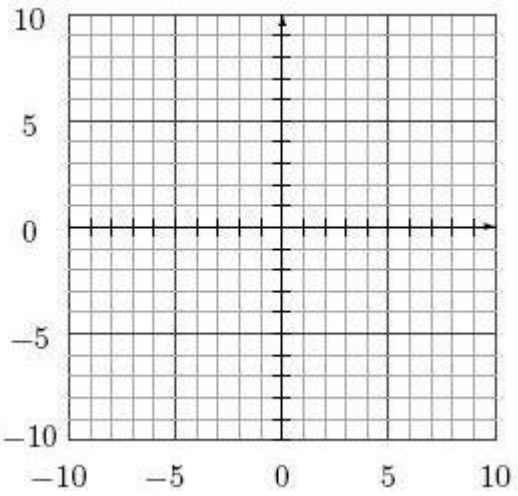


16. m = 4, b = -2 16. _____

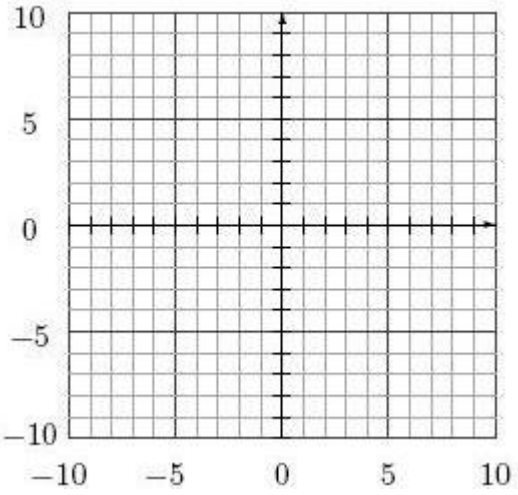


Write the equation of the line in **Slope-Intercept**. Then graph each line. Show work to receive full credit.

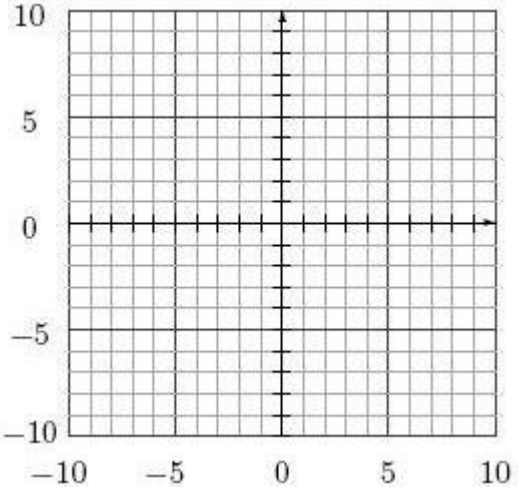
17. The line passing through the point (-2,4) with slope = -4 17. _____



18. The line passing through the point (7,5) with slope = $-\frac{3}{7}$ 18. _____

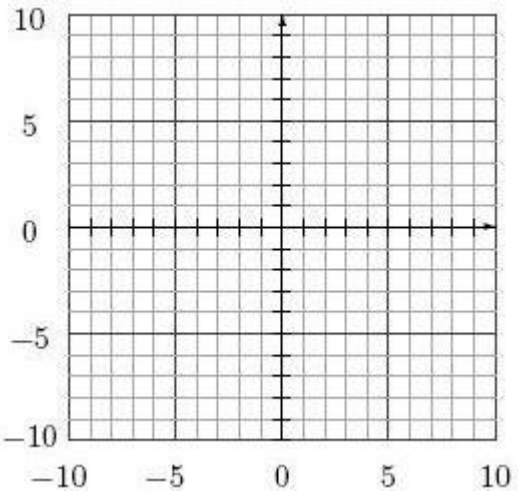


19. The line passing through the point (-2,-3) with slope = 0 19. _____

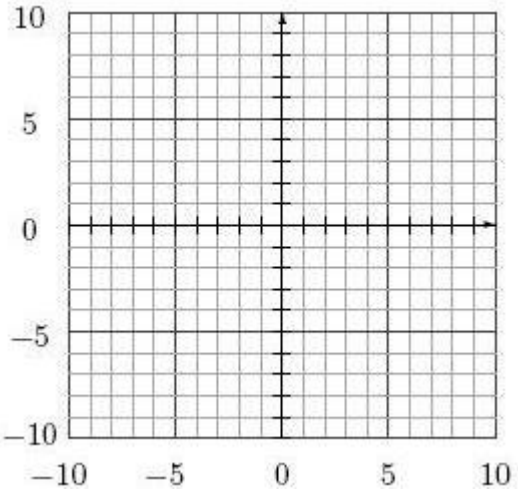


Write the equation of the line in **Slope-Intercept**. Then graph each line. Show work to receive full credit.

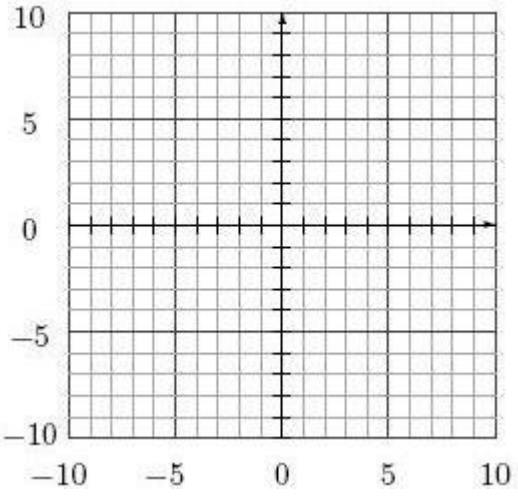
20. The line passing through the points (4,5) and (-4,3) 20. _____



21. The line passing through the points (2,0) and (0,-1) 21. _____



22. The line passing through the points (2,-5) and (0,0) 22. _____



Calculate the slopes of the following lines **AND** determine wether they are parallel, perpendicular or neither. Show work to receive full credit.

23. L_1 passing through the points (-2,3) and (-4,6) and
    L_2 passing through the points (-5,-7) and (-11,-3) 23. _____

24. L_1 passing through the points (2,5) and (-4,-10) and
    L_2 with equation $-10x + 4y = 16$ 24. _____

25. L_1 with equation $-3x + 4y = 8$ and L_2 with equation $12x + 9y = 18$ 25. _____

Write the equation of the line (L) satisfying the given conditions. Put your final answer in **Slope-Intercept Form.** Show work to receive full credit.

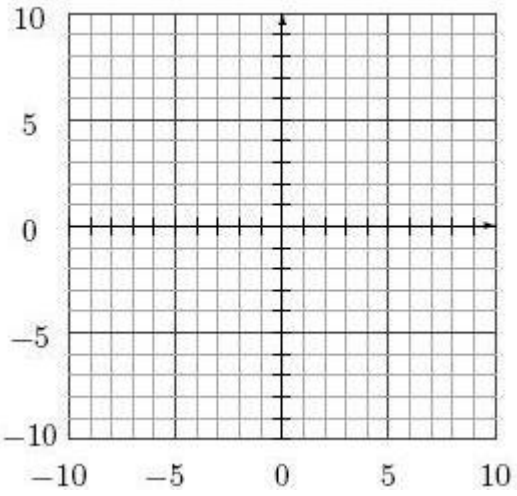
26. L passes through the point (-2,4) and is parallel to the y-axis. 26. _____

27. L passes through the point (3,-4) and is perpendicular to the line $y = 3x + 2$. 27. _____

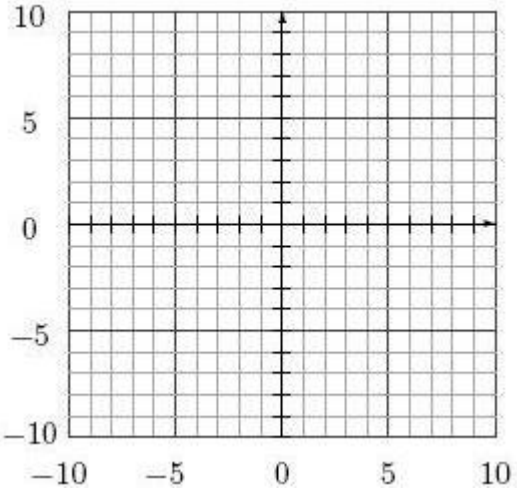
28. L passes through the point (4,2) and is perpendicular to the y-axis. 28. _____

Solve each inequality, then graph the solution set.

29. $-5x + 2y \geq 10$ 29. _____



30. $3x + 4y < -12$ 30. _____



31. $6 < 2x - 3y$ 31. _____