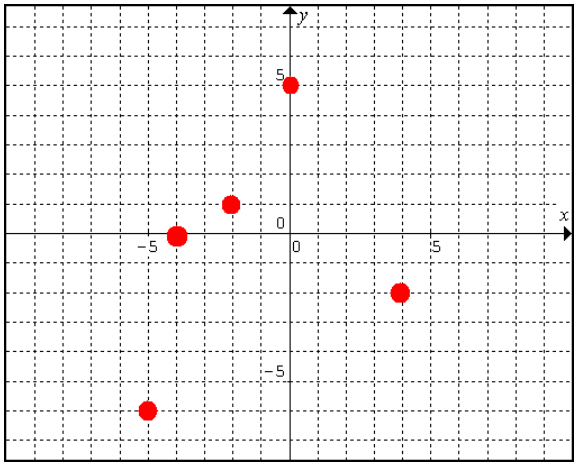
MTH 097 Review for Exam 2

1. Graph the points (-2, 1) (0, 5) (-5, -6) (4, -2) (-4, 0)



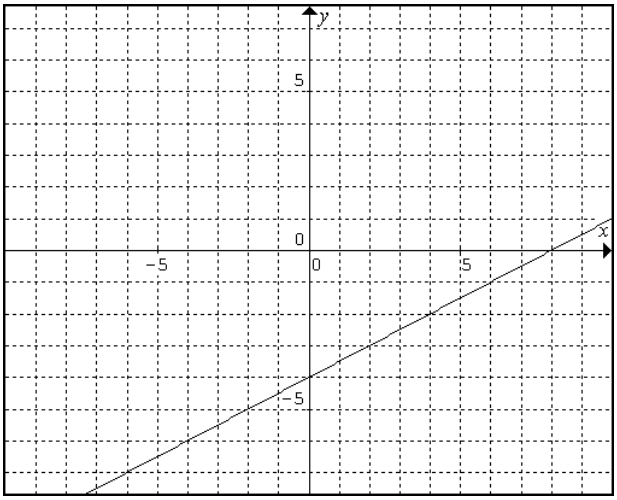
2. Is the point (2, -4) on the line x – y = -2 ?

(2) – (-4) = –2

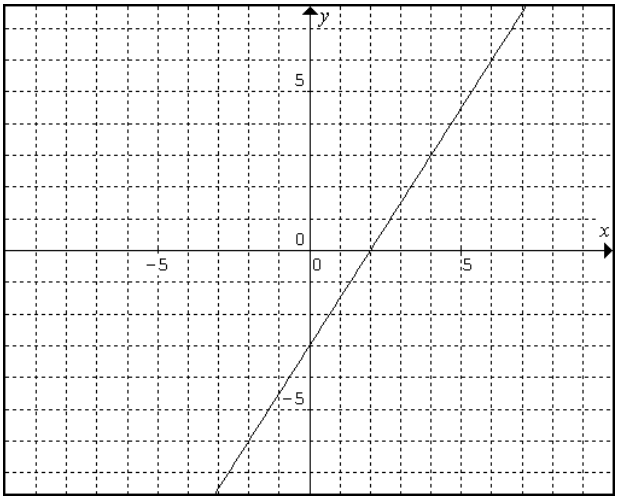
2 + 4 = -–2

6 = –2 NO

3. Graph the line y = ½ x – 4



4. Graph the line 3x – 2y = 6



5. Find the x-intercept and the y-intercept of the equation x + 4y = 8

(0, 2) y-intercept **(8, 0) x-intercept**

6. Find the slope of the line containing the points (2, –7) and (–2, 1) **m = – 2**

7. Find the slope of the line containing the points (3, –7) and (3, 1) **m = undefined**

8. Find the slope of the line containing the points (–2, 1) and (–3, 1) **m = 0**

11. L1 (1, 3) and (2, 7)
L2 (0, 0) and (-4, 1)

$m_1 = 4$ $m_2 = -1/4$ perpendicular

12. L1 (-4, -3) and (-2, 3)
L2 (9, 1) and (6, 10)

$m_1 = 3$ $m_2 = -3$ neither

13. Find the equation of the line that contains the points (1, 4) and (-1, 10).

y = –3x + 7

14. Find the equation of the line that has a slope of 0 and contains the point (5, -7).

y = –7 or y = 0x – 7

15. Find the equation of the line that contains the points (0, 2) and (-5, 2)

y = 2 or y = 0x + 2

16. Find the equation of the line that has an undefined slope and contains the points (-6, 1)

x = –6

17. Find the equation of the line that contains the points (1, -7) and (1, 8)

x = 1

18. Find the equation of the line parallel to 3x + 7 = 4 containing the point (-5, 2)

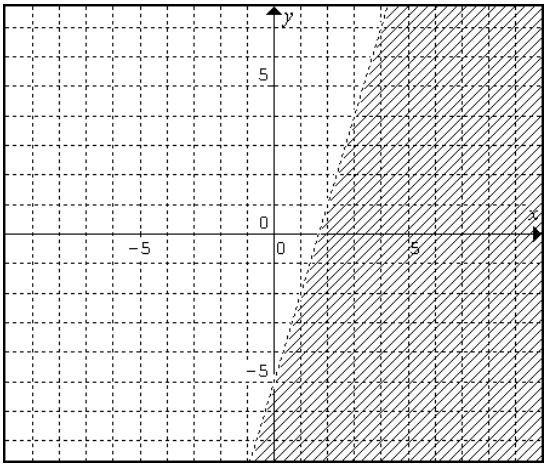
x = –5

19. Find the equation of the line perpendicular to y = 2x + 5 containing the point (4, 9)

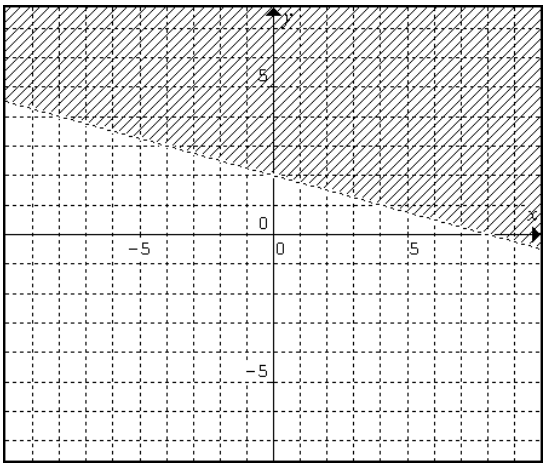
$y = -{}^{1}/_{2}\,x + 11$

Section 8.5 – Graph Linear Inequalities in two variables

20. $y < 3x - 5$ **(dotted line)**



21. $x + 4y \geq 8$ **(solid line)**



22. $5x - 2y < 10$ **(dotted line)**