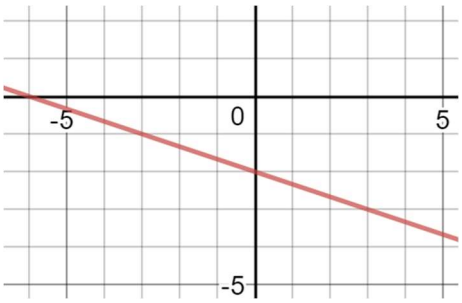
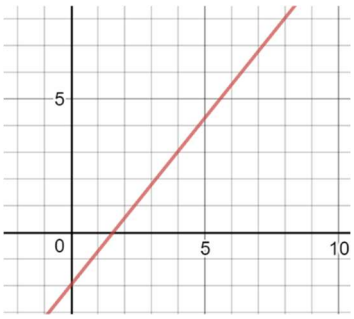
Unit 5 & 6 – Final Review

1. Write the equation in slope-intercept form

a)



b)



2. Use the formula to find the slope of the line segment:

a) $\boldsymbol{A}\ (-4, 3)$ and $\boldsymbol{B}\ (2, -5)$

b) $\boldsymbol{C}\ (2, -7)$ and $\boldsymbol{D}\ (-1, 5)$

3. Write an equation for a line that passes through the point $\boldsymbol{A}$ (5, -2) and is perpendicular to the line $y = 3x + 5$.

a) point slope form

b) slope-intercept form

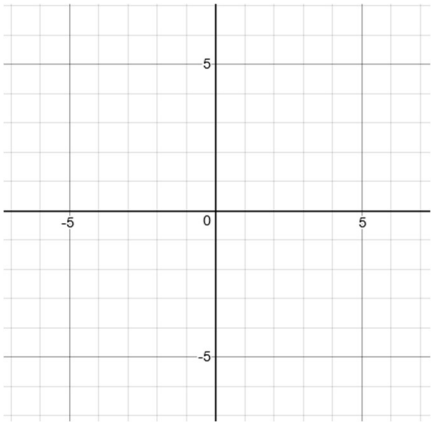
4. Write each equation in general form.

a) $y - 2 = -3(x + 5)$

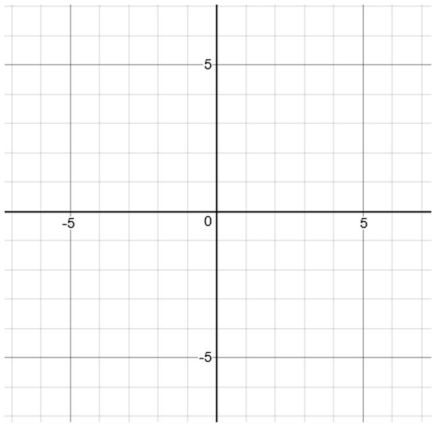
b) $y + 9 = \frac{1}{3}(x - 4)$

5. Graph each linear function.

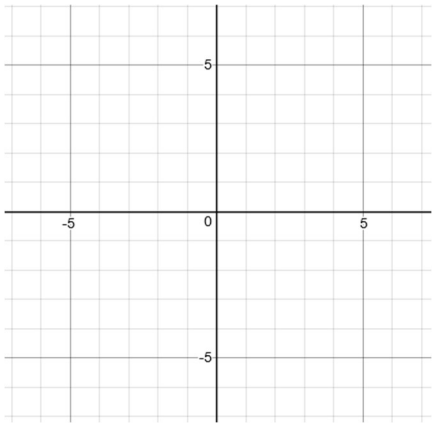
a) $y - 5 = -\frac{2}{3}(x + 3)$



b) $-2y - 6 = 3x$

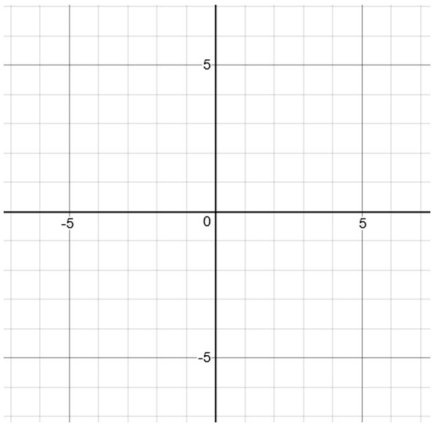


6. Determine the coordinates of the x and y intercepts of the line. Use the points to graph the linear function. $4x - 8y + 24 = 0$

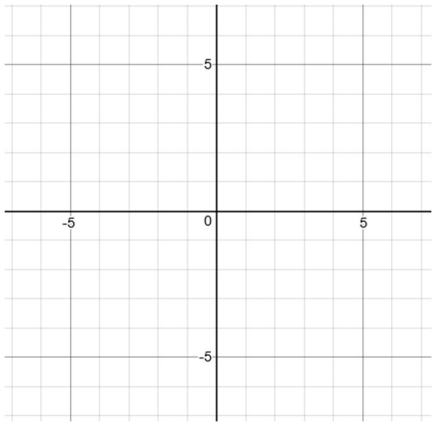


7. Solve by graphing:

a) $y = 2x - 4$
$y = \frac{1}{2}x + 2$



b) $2y = 8 - 3x$
$-8 - 2y + x = 0$



8. Solve by substitution.

a) $y = -x + 2$
$0 = 3x - y - 2$

b) $4y = 7x - 16$
$8 = -x + 4y$

9. Solve by elimination.

a) $2y = 10x - 6$
$0 = 3 - x - y$

b) $-\frac{3}{2}x - 3y - 9 = 0$
$-7x - 2y + 6 = 0$

10. Solve by the method of your choice.

a) $y + \frac{7}{2}x = 3$
$2y + x + 6 = 0$

b) $1 = \frac{1}{2}y - \frac{1}{6}x$
$-5x - 12 - 3y = 0$

11. Verify that $(-2, -5)$ is a solution to the linear system of equations: $3x - \frac{1}{2}y = -1$
$3 + y - x = 0$

12. Determine the number of solutions for each linear system.

a) $4y + 6x + 4 = 0$
$2y = -3x + 2$

b) $-y - x = -8$
$\frac{1}{4}y = 2 - \frac{1}{4}x$

Additional Practice: p.326 #3 – 6, 8, 9, 11,13, 16 – 18 et p.452 #4, 7, 10ab, 12, 15, 20