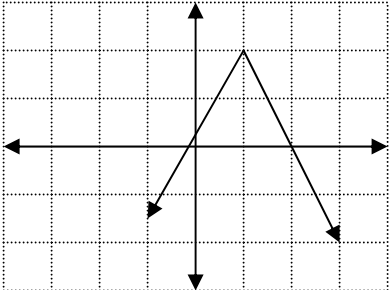


Algebra II Chapter 4 Review

1. Find the area of a triangle with vertices $(-1, 3)$, $(4, 1)$ and $(-2, 0)$.
2. If $f(x) = 5x + 1$, then (a) what is $f(y + 3)$? (b) What will make $f(y + 3) = 0$?
3. Make sure you know the formula for the determinant and the inverse of a 2×2 matrix. Also, review what the “identity matrix” for all matrices.
4. Solve the following system:

$$\begin{aligned} 2x + 3y - z &= 7 \\ -2x + 5y + 3z &= -13 \\ 3x + 3y - 2z &= 12 \end{aligned}$$
5. If $A = \begin{bmatrix} 3 & 5 \\ -1 & 2 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 3 & 5 \\ 0 & 1 & 1 \\ 2 & 1 & 0 \end{bmatrix}$
 - a) Find the determinant of A and inverse of A (Also know how to do this if I put an x in place of any of the numbers.)
 - b) Find the determinant of B and inverse of B
6. Understand how to solve the matrix like the group quiz (without calculator!)
7. Find the equation of the following:


8. Review sections 1 and 2 in your book on how to add, subtract and multiply matrices.

Answers

1. 8.5
2. a) $5y + 16$ b) $5y + 16 = 0, y = -16/5$
3. ---
4. $x = 2, y = 0, z = -3$
5. a) $\det = 11, A^{-1} = \begin{bmatrix} 2/11 & -5/11 \\ 1/11 & 3/11 \end{bmatrix}$ b) $\det = -5, B^{-1} = \begin{bmatrix} .2 & -1 & /4 \\ -.4 & 2 & .2 \\ .4 & -1 & -.2 \end{bmatrix}$
- 6.
7. $y = -2|x - 1| + 2$