

Name _____ Banner _____

Spring 2008

Quiz #1

Precalculus

Show your work. Use proper notation. Think before you write or give up.
Box your final answers. Write on this paper only. Do easy problems first.

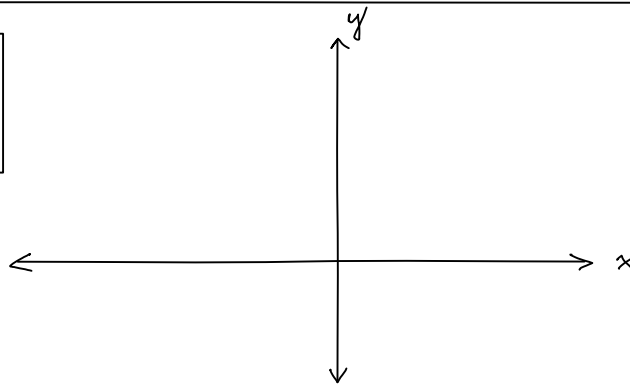
#1) Solve for x : $3x^2 + 2x^1 - 1 \cdot x^0 = -6x^2 - 3x^1 + 2x^0$

#2) Which values of x and y simultaneously satisfy the following two equations?
 $2x + y = 7$ and $y - 2x = 5y$

#3) Use Pascal's Triangle to completely expand $(a+b-c)^5$

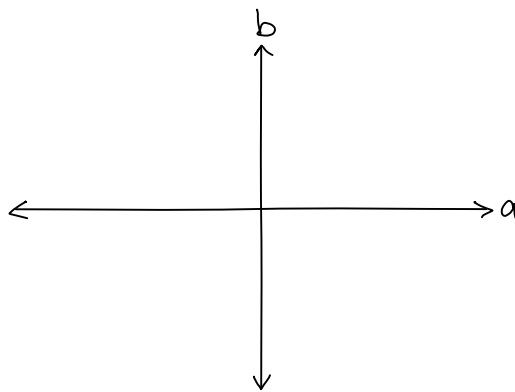
#4) A) Graph: $y = f(x) = z^2 + 2z + 1$ where $z = x - 1$

Notice I've labeled the axes for you.



B) Graph the solutions to the following equation: $a^2 + b^2 = 5^2$

Notice I've labeled the axes for you.



C) Evaluate the following:

(i) $2^3 / 3^{-2} =$

(ii) $3^{-2} \cdot (2^3)^{-2} + 3^{-2} =$

(iii) $\frac{2^3 / 3^2}{(3^2)^{-1}} + \frac{3^2 / 2^{-3}}{(2^{-3})^{-1}} =$

#5) Solve for x : $\sqrt{x^2} = (\sqrt{x})^2$

Hint: Will any real number work or only integers? Positives or negatives? What is $\sqrt{-1}$?
How many solutions are there?

#6) Solve for a in terms of $x, y,$ and z : $xa^2 + ya + z = 0$ (show your work)
