

Algebra 1 Quiz 11.22.13

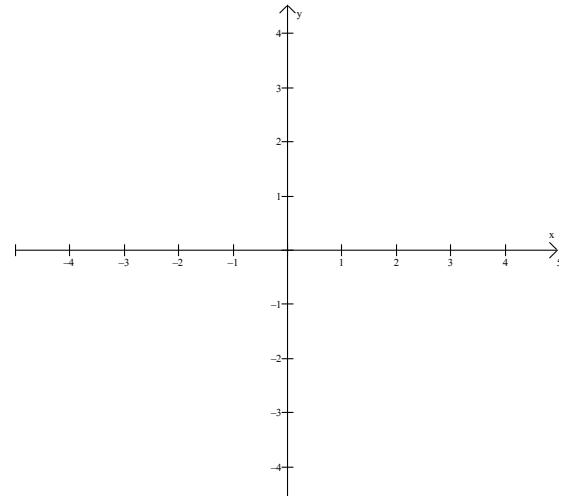
Version A

Growth Guru _____
period _____

1) Simplify: $6(4x - 3) + 3(x - 5)$

2) Graph the linear inequality

$$2x - 3y < -12$$



3) Solve the system of linear equations using *elimination*

$$3x - 2y = 12$$

$$4x - 4y = 8$$

4) Simplify $\left(\frac{-2xy^3}{8x^{-2}y^5}\right)^3$

5) **Perimeter Question:** A rectangle garden has a length of $4x - 7$ and a width of $2x + 4$ and a perimeter of 90 feet. What is the length and width of the garden to the nearest foot? (Draw a picture)

Bonus!! Population Growth: The current population of Russia is estimated at 143.5 million. The *10-year* growth rate shows the population decreasing by 3%. Using an exponential growth/decay model, what do you predict the population of Russia to be in 40 years? **Show all calculations!!!**