Math 085 - Quiz 6

September 17, 2013

Name __key__

Score _____

Show all your work to receive full credit. Supply explanations when necessary.
NO CALCULATORS ARE ALLOWED ON THIS QUIZ!

1. (2 points) Solve each equation.

   (a) $5x + 6 = -29$

   $$\begin{array}{rcl} -6 & & -6 \\ \hline \dfrac{5x}{5} &=& \dfrac{-35}{5} \end{array}$$

   $$\boxed{x = -7}$$

   (b) $-3y - 5 = -23$

   $$\begin{array}{rcl} +5 & & +5 \\ \hline \dfrac{-3y}{-3} &=& \dfrac{-18}{-3} \end{array}$$

   $$\boxed{y = 6}$$

2. (1 point) Use the distributive property to remove the parentheses. Then simplify by combining like terms.

   $$6(x - 3) + 3(x + y) + 2y + 3$$

   $$6x - 18 + 3x + 3y + 2y + 3$$

   $$\boxed{9x + 5y - 15}$$

3. (1 point) List the terms: $4x^2 - 6y + 8x - 9$

   $$\boxed{4x^2, \; -6y, \; 8x, \; -9}$$

4. (1 point) Solve: $4(x - 2) + 3 = 15$

   $$4x - 8 + 3 = 15$$

   $$4x - 5 = 15$$

   $$\begin{array}{rcl} +5 & & +5 \end{array}$$

   $$\dfrac{4x}{4} = \dfrac{20}{4}$$

   $$\boxed{x = 5}$$