Math 085 - Quiz 15

November 21, 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 for x.

   (a) $2(x + 7.3) = 6x - 0.83$

   $2x + 14.6 = 6x - 0.83$

   $\quad -2x \qquad\qquad -2x$

   $\qquad 14.6 = 4x - 0.83$

   $\qquad +0.83 \qquad\quad +0.83$

   $\dfrac{15.43}{4} = \dfrac{4x}{4}$

   $\boxed{3.8575 = x}$

   $4\overline{)15.43}$ = 3.8575

   (b) $9(x - 4) + 13 = 4x - 23$

   $9x - 36 + 13 = 4x - 23$

   $9x - 23 = 4x - 23$

   $\quad -4x \qquad\quad -4x$

   $\qquad 5x - 23 = -23$

   $5x = 0$

   $\boxed{x = 0}$

2. (1 point) Joe's last four electric bills were for \$65.10, \$85.45, \$57.20, and \$62.55. Find the average amount of these bills.

   $\dfrac{65.10 + 85.45 + 57.20 + 62.55}{4} = \dfrac{270.3}{4} = \boxed{67.575}$

   $4\overline{)270.3}$ = 67.575

3. (2 points) Solve for x.

   (a) $\dfrac{8}{9} = \dfrac{32}{x}$

   $\dfrac{8x}{8} = \dfrac{288}{8}$

   $\boxed{x = 36}$

   $8\overline{)288}$ = 36

   (b) $\dfrac{x}{8} = \dfrac{9}{6}$

   $\dfrac{6x}{6} = \dfrac{72}{6}$

   $\boxed{x = 12}$