**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Multi-Step Equation Quiz (Version B)**

**Directions: Solve each equation for x showing all steps. Tip: D**on’t **C**all **M**e **A**fter **M**idnight **(D**istribute, **C**ombine Like Terms**, M**ove Variable to One Side, **A**dd/Subtract, **M**ultiply/Divide)

**1.** $\frac{1}{2}x$ – 8 + $\frac{1}{3}x$ = 7 2**.** $ \frac{x}{5}$– 12 = -8 3**.** $\frac{2}{3}x$ – 4 = 10

**4.** 6x – 4x – 5 = -30 **5.** 2(4x – 3) = 1 **6.** -3(2x + 4) = -6

**7.**  -4x + 7 = -2x + 8 **8.**  8x – 4 = 5x – 34 **9.**  -2x + 12 = 3x – 18

**10.** The side lengths of a triangle are:

Side 1: 5x + 2 Side 2: 3x + 18 Side 3: 4x + 8 – 2

If the perimeter of the triangle is 86ft., how long is the shortest side? The longest side?

**11.** -x – 6 + 3 = -2x – 5 **12.**  -5x + 9x – 6 = 2x – 8 **13.** 2x + 10 + -5x = x – 18

**14.** 10x – 6 = 3x – 3

**15.** The length of one side of an equilateral triangle is ½ (4x – 6). If the perimeter of the triangle is 57 in., what is the length of each side of the triangle?