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

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

**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 + $\frac{2}{6}x$ = 7 2**.** $ \frac{x}{5}$– 12 = -8 3**.** $\frac{2}{3}x$ + -4 = 10

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

**7.**  6(-2x – 3) + 7 = -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: 3(x + 6) 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 – 18 + 12= 2x – 8 **13.** -4x – 5x + 7 – 2x = -15

**14.** -5x + 2(x + 5) = x – 18 **15.** 5(-3x + 4) + 6 = -12 + -7 **16.** –(-5x – 3) = 3x – 3

**17.** 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?