Name: _____ Date: _____ Period: _____

Solving Multi-Step Equations Assignment

1) **Find the error**:

$34x - 94 = 18(x - 39)$

34x – 94 = 18x - 39

-18x -18x

16x - 94 = -39

+94 +94

16x = 55

x = 3.4375

2) $27(x + 34) = -7 - 10x$

3) $-33x + 19(1 - 12x) = 33x + 19$

4) $18.338 - 6.1r = 7.4(1.3r + 6.23) - 3.1r$

5) $-\frac{13}{12} - \frac{4}{3}n = -\frac{1}{3}(3n + \frac{11}{4})$

6) $-\frac{5}{4}\left(r + \frac{3}{2}\right) = -\frac{17}{3} - \frac{7}{3}r$

7) $-9(b + 10) = 9(b + 4)$

8) $\frac{2x-1}{3} = \frac{4x+5}{7}$

Determine if the solution is zero, there is no solution, or there are infinitely many solutions.

9) $12r - 6(2r + 1) - 4 = -106$

10) $6(5v + 3) + 4v + 7 = 25 - 9v$

11) $-3(8 - 8k) = -8 + 3(8k - 5)$

12) $4(10 - 9n) = 4n - 8(5n - 5)$

Set up an appropriate equation, solve the equation, and then answer the question in the statement.

13) Angle A and Angle B are vertical angles. The measure of angle A is represented by the expression 24x -5 and the measure of angle B is represented by the expression 3(5x+7)+10.

a) What is the value of x?

b) What is the measure of angle A?

14) Angle A and Angle B are supplementary angles. The measure of angle A is represented by the expression 2(47 -3x) -x and the measure of angle B is represented by the expression 3(3x+24).

a) What is the value of x?

b) What is the measure of angle A and angle B?

15) Angle A and Angle B are alternate interior angles. The measure of angle A is represented by the expression 2(2m+1) + 11m and the measure of angle B is represented by the expression 5m + 2(4m + 7).

a) What is the value of x?

b) What is the measure of angle A and angle B?

16) Angle A and Angle B are complementary angles. The measure of angle A is represented by the expression 4w + 55 and the measure of angle B is represented by the expression -7(w – 2).

a) What is the value of x?

b) What is the measure of angle A and angle B?