Name:_____ Period_____

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HW 1-8 Solving Multi-Step Equations

Solve. Give the exact value of the variable (Leave as a fraction in simplest form or as a whole number. NO DECIMALS)

1) $-9z = 21 - 3z$

2) $21 - 13 + 10r = 12r + 9r - 2$

3) $-14c - 7 = -c + 19$

4) $-5(3 - 6x) = 21 - 3(4x - 2)$

5) $18k - k + 9 = 7k - 5 + 14$

6) $8 + 44g - 28 = 54$

7) $\frac{8n - (-2)}{-6} = 9$

8) $23d - 12 = 51d + 20$

9) $4k - 23 = -5(7k - 11)$

Determine whether the solution given for the equation is correct. If the given solution is not correct, solve to find the correct solution.

10) Solution: $p = -9$
Equation: $8p = 45 + 13p$

11) Solution: $a = \frac{17}{3}$
Equation: $26 - 6a = -42 + 18a$

12) Solution: $n = 13$
Equation: $17n - 90 = 62n$

Solve. Give the exact value of the variable (Leave as a fraction in simplest form or as a whole number. NO DECIMALS)

13) $-54 + 9h = 21 - 5h$

14) $3(13x + 12) - 60 = 39x + 106$

15) $25 - 8y = -85 + 2y$

16) $18 + 2x = 6x + 2$

17) $-10 - k = -14 + 2k$

18) $3y - 7 = 17 + 7y$

19) $-6z = 14 - z$

20) $12 - 6 + 7r = 2r + 5r - 36$

21) $-5c - 7 = -3c - 37$

22) $\frac{7n + (-5)}{-3} = 11$

23) $-4(2 - 3x) = 7 - 2(x - 3)$

24) $8k - 2k + 3 = 6k - 3 + 6$