Name: Key

No work No credit

Date: _____

CW # 1-1: Algebra 1 - Sections 2.3 and 2.4: Solve Multi-Step Equations 18 points

Solve each equation. Check your solution.

Complete 4

5. $5x + 3 = 23$

$-3 \quad -3$

$\frac{5x}{5} = \frac{20}{5}$

$x = 4$

8. $6 + 5c = -29$

$-6 \quad -6$

$\frac{5c}{5} = \frac{-35}{5}$

$c = -7$

10. $3(6 + 5y) = 2(-5 + 4y)$

$18 + 15y = -10 + 8y$

$-8y \quad -8y$

$7y + 18 = -10$

$-18 \quad -18$

$\frac{7y}{7} = \frac{-28}{7}$

$y = -4$

11. $\frac{n}{3} - 8 = -2$

$+8 \quad +8$

$\frac{n}{1} \cdot \frac{1}{3} = 6 \cdot 3$

$n = 18$

18. $\frac{1}{3}(n + 1) = \frac{1}{6}(3n - 5)$

$\frac{6}{1}\left(\frac{1}{3}n + \frac{1}{3}\right) = \left(\frac{1}{2}n - \frac{5}{6}\right)\frac{6}{1}$

$2n + 2 = 3n - 5$

$-2n \quad -2n$

$2 = n - 5$

$+5 \quad +5$

$7 = n$

21. $\frac{c - 5}{4} = 3$ (4)

$c - 5 = 12$

$+5 \quad +5$

$c = 17$

Write an equation and solve each problem.

Complete both

23. Twice a number plus four equals 6. What is the number?

$2x + 4 = 6$

$-4 \quad -4$

$\frac{2x}{2} = \frac{2}{2}$

$x = 1$

24. Sixteen is seven plus three times a number. Find the number.

$16 = 3x + 7$

$3x + 7 = 16$

$-7 \quad -7$

$\frac{3x}{3} = \frac{9}{3}$

$x = 3$

Solve each equation. Check your solution.

Complete 2

1. $5x - 3 = 13 - 3x$

$+3x \quad +3x$

$8x - 3 = 13$

$+3 \quad +3$

$\frac{8x}{8} = \frac{16}{8}$

$x = 2$

2. $-4r - 11 = 4r + 21$

$+4r \quad +4r$

$-11 = 8r + 21$

$-21 \quad -21$

$\frac{-32}{8} = \frac{8r}{8}$

$r = -4$

7. $3(-2 - 3x) = -9x - 4$

$-6 - 9x = -9x - 4$

$+9x \quad +9x$

$-6 \neq -4$ no solutions

Write an equation and solve each problem.

Complete 1

23. NUMBERS Two thirds of a number reduced by 11 is equal to 4 more than the number. Find the number.

$3\left(\frac{2}{3}x - 11\right) = 3(x + 4)$

$2x - 33 = 3x + 12$

$-2x \quad -2x$

$-33 = x + 12$

$-12 \quad -12$

$x = -45$