NAME _____ HW # 5

Solve each equation and check your solution.

1. $-10 + 7d + 3 - d = 29$

$6d - 7 = 29$

$+7 \quad +7$

$\frac{6d}{6} = \frac{36}{6}$

$\boxed{d = 6}$

Check

$-10 + 7d + 3 - d = 29$

$-10 + 7(6) + 3 - 6 = 29$

$-10 + 42 + 3 - 6 = 29$

$32 + 3 - 6 = 29$

$35 - 6 = 29$

$29 = 29$ ✓

2. $4n + 10 - 1(n - 20) = 60$

$4n + 10 - 1n + 20 = 60$

$3n + 30 = 60$

$-30 \quad -30$

$\frac{3n}{3} = \frac{30}{3}$

$\boxed{n = 10}$

Check

$4n + 10 - (n - 20) = 60$

$4(10) + 10 - (10 - 20) = 60$

$40 + 10 - (-10) = 60$

$50 - (-10) = 60$

$50 + 10$

$60 = 60$ ✓

3. $-3(2x - 7) + x = 31$

$-6x + 21 + x = 31$

$-5x + 21 = 31$

$-21 \quad -21$

$\frac{-5x}{-5} = \frac{10}{-5}$

$\boxed{x = -2}$

Check

$-3(2(-2) - 7) + (-2) = 31$

$-3(-4 - 7) + (-2) = 31$

$-3(-11) + (-2) = 31$

$33 + (-2) = 31$

$31 = 31$ ✓

4. $5(x - 2) + 34 + 3x = -32$

$5x - 10 + 34 + 3x = -32$

$8x + 24 = -32$

$-24 \quad -24$

$\frac{8x}{8} = \frac{-56}{8}$

$\boxed{x = -7}$

Check

$5(x - 2) + 34 + 3x = -32$

$5(-7 - 2) + 34 + 3(-7) = -32$

$5(-9) + 34 + 3(-7) = -32$

$-45 + 34 + (-21) = -32$

$-11 + (-21) = -32$

$-32 = -32$ ✓