Name:

# Unit 1 Day 9 - **MARTIAN DARTS**

## Part One: Solve the following one-step equations:

1. $x - 9 = -31$

$+9 \quad +9$

$x = -22$

2. $27 = m + 43$

$m = -16$

3. $\frac{x}{-4} = 8$ $\cdot -4$

$x = -32$

4. $5j = 55$

$\frac{5j}{5} = \frac{55}{5}$

$j = 11$

## Part Two: Solve the following two step equations:

5. $9k - 7 = -7$

$+7 \quad +7$

$9k = 0$

$k = 0$

6. $6 = \frac{a}{3} + 2$

$-2 \quad -2$

$3 \cdot 4 = \frac{a}{3} \cdot 3$

$a = 12$

7. $-15 = -4y + 5$

$-5 \quad -5$

$\frac{-20}{-4} = \frac{-4y}{-4}$

$5 = y \rightarrow y = 5$

8. $8 + \frac{c}{-4} = 5$

$-8 \quad -8$

$-4 \cdot \frac{c}{-4} = -3 \cdot -4$

$c = 12$

## Part Three: Solve the following multi-step equations:

9. $-10 = 10(x - 9)$

$-10 = 10x - 90$

$80 = 10x$

$x = 8$

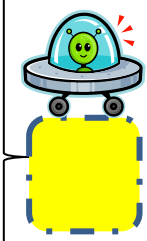
10. $2(n + 5) = -2$

$2n + 10 = -2$

$-10 \quad -10$

$\frac{2n}{2} = \frac{-12}{2}$

$n = -6$



11. $\frac{x}{-3} = 7$ $\cdot -3$

$x = -21$

12. $\frac{y}{4} - 1 = 8$

$+1 \quad +1$

$\frac{y}{4} = 9 \cdot 4$

$y = 36$

## Part Four: Solve the following equations with variables on the same side of the equation:

13. $8m + 5 - 6m = 1$

$2m + 5 = 1$
$-5 \quad -5$
$\frac{2m}{2} = \frac{-4}{2}$
$m = -2$

14. $29 = 4k + 8 - k$

$29 = 3k + 8$
$-8 \quad -8$
$\frac{21}{3} = \frac{3k}{3}$
$k = 7$

15. $10p + 3 - 4p = 21$

$6p + 3 = 21$
$-3 \quad -3$
$\frac{6p}{6} = \frac{18}{6}$
$p = 3$

16. $19 = -17b - 5 + 13b$

$19 = -4b - 5$
$+5 \quad +5$
$\frac{24}{-4} = \frac{-4b}{-4}$
$b = -6$

## Part Five: Solve the following equations with variables on opposite sides of the equation:

17. $7 - x = 4 + 2x$

$-4 \quad -4$
$3 - x = 2x$
$+x \quad +x$
$\frac{3}{3} = \frac{3x}{3}$
$x = 1$

18. $5t - 7 = 2t + 2$

$+7 \quad +7$
$5t = 2t + 9$
$-2t \quad -2t$
$\frac{3t}{3} = \frac{9}{3}$
$t = 3$

19. $3 + 12f = 3(3 + 2f)$

$3 + 12f = 9 + 6f$
$3 + 6f = 9$
$\frac{6f}{6} = \frac{6}{6}$
$f = 1$

20. $-4(n + 2) = 8 - 2n$

$-4n - 8 = 8 - 2n$
$+8 \quad +8$
$-4n = 16 - 2n$
$+2n \quad +2n$
$\frac{-2n}{-2} = \frac{16}{-2}$
$n = -8$

21. $5(y + 2) = 3(1 + 2y)$

$5y + 10 = 3 + 6y$
$-6y \quad -6y$
$-y + 10 = 3$
$-10 \quad -10$
$\frac{-y}{-1} = \frac{-7}{-1}$
$y = 7$

22. $\frac{1}{2}(2x + 4) = 2x - 3$

$1x + 2 = 2x - 3$
$-2 \quad -2$
$x = 2x - 5$
$-2x \quad -2x$
$\frac{-x}{-1} = \frac{-5}{-1}$
$x = 5$