Name: KEY Period: _____

Unit 4: 1C One- and Two-Step Equations Worksheet

Section One: Solve for the variable.

1.) $2x - 5 = 17$

$+5 \quad +5$

$\frac{2x}{2} = \frac{22}{2}$ $x = 11$

2.) $\frac{12}{3} = \frac{3x}{3}$ $x = 4$

3.) $25 = 3y + 7$

$-7 \quad -7$

$\frac{18}{3} = \frac{3y}{3}$ $y = 6$

4.) $18.2 = 4y + 9$

$-9 \quad -9$

$\frac{9.2}{4} = \frac{4y}{4}$ $y = 2.3$

---------- **Checkpoint** ----------

5.) $\frac{5n}{5} = \frac{38}{5}$ $n = 7.6$

6.) $16 = 5n + 3.5$

$-3.5 \quad -3.5$

$12.5 = 5n$ $n = 2.5$

7.) $28 = -12b + 4$

$-4 \quad -4$

$\frac{24}{-12} = \frac{-12b}{-12}$ $b = -2$

8.) $\frac{m+2}{3} = 16 \cdot 3$

$m + 2 = 48$

$-2 \quad -2$

$m = 46$

9.) $9x - 7 = -7$

$+7 \quad +7$

$\frac{9x}{9} = \frac{0}{9}$ $x = 0$

10.) $\frac{3}{4}x - 4 = 5$

$+4 \quad +4$

$\frac{4}{3} \cdot \frac{3}{4}x = 9 \cdot \frac{4}{3}$ $x = 12$

---------- **Checkpoint** ----------

Section Two: Write the expression using numbers and variables. Then solve for the variable.

Examples: *Six less than the product of four and a number is 96.*

$4x - 6 = 96$

Then solve... x = 25.5

The quotient of x and twelve is 48.

$\frac{x}{2} = 48$

Then solve... x = 96

1.) Five less than double a number is -17.

Equation: $2x - 5 = -17$

$+5 \quad +5$

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

Answer: $x = -6$

2.) Three less than the quotient of a number and five is 8.

Equation: $\frac{n}{5} - 3 = 8$

$+3 \quad +3$

$5 \cdot \frac{n}{5} = 11 \cdot 5$

Answer: $n = 55$

---------- **Checkpoint** ----------

3.) Two less than five times a number is 38.

Equation: $5x - 2 = 38$

$+2 \quad +2$

$\frac{5x}{5} = \frac{40}{5}$

Answer: $x = 8$

4.) Six more than a number multiplied by four is 150.

Equation: $4x + 6 = 150$

$-6 \quad -6$

$4x = 144$

Answer: $x = 36$

---------- **Checkpoint** ----------

Section Three: Write an equation from each scenario and solve for the variable.

1.) A group of 5 people went out to dinner and split the bill evenly. Each person also threw in a $2 tip. If the bill was d dollars, write an equation if each person spent $13.20. Solve your equation to find the original bill.

$\frac{d}{5} + 2 = 13.20$

$\frac{d}{5} + 2 = 13.20$

$-2 \quad -2$

$5 \cdot \frac{d}{5} = 11.20 \cdot 5$

$d = \$56$

2.) Marco works at Yummy Tummy, a new restaurant. He makes $5 each hour and $30 in tips. If he makes $65, how many hours did he work? Write an equation. Then solve.

$5x + 30 = 65$

$5x + 30 = 65$

$-30 \quad -30$

$\frac{5x}{5} = \frac{35}{5}$

$x = 7$

---------- **Checkpoint** ----------