

Name: Key

Date: _____

HW # 9: Algebra 1 - Standard 5 - Solve Multi - Step Equations

5 points

Solve each equation: (Show the work that leads to the correct solution)

1. $3t + 7 = -8$

$$\begin{array}{r} -7 \quad -7 \\ 3t = -15 \\ \frac{3t}{3} = \frac{-15}{3} \\ \boxed{t = -5} \end{array}$$

3. $-34 = 6m - 4$

$$\begin{array}{r} +4 \quad +4 \\ -30 = 6m \\ \frac{-30}{6} = \frac{6m}{6} \\ \boxed{-5 = m} \end{array}$$

5. $\frac{y}{5} - 6 = 8$

$$\begin{array}{r} +6 \quad +6 \\ (\frac{5}{1}) \frac{y}{5} = 14(5) \\ \boxed{y = 70} \end{array}$$

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

$$\begin{array}{r} n-2 = 14 \\ +2 \quad +2 \\ \boxed{n = 16} \end{array}$$

33. $5(1+n) = -5$

$$\begin{array}{r} \frac{5}{5} \quad \frac{5}{5} \\ 1+n = -1 \\ -1 \quad -1 \\ \boxed{n = -2} \end{array}$$

35. $-\frac{a}{6} + 5 = 2$

$$\begin{array}{r} -5 \quad -5 \\ (-6) \frac{-a}{6} = -3(-6) \\ \boxed{a = 18} \end{array}$$

13. **SHOPPING** Ricardo spent half of his allowance on school supplies. Then he bought a snack for \$5.25. When he arrived home, he had \$22.50 left. Write and solve an equation to find the amount of Ricardo's allowance a .

$$\begin{array}{r} \frac{1}{2}a - 5.25 = 22.5 \\ +5.25 \quad 5.25 \end{array}$$

His allowance was
\$55.50

$$\begin{array}{r} (\frac{1}{2}) \frac{1}{2} a = 27.75(2) \\ \boxed{a = 55.50} \end{array}$$

17. **HUMAN HEIGHT** Micah's adult height is one less than twice his height at age 2. Micah's adult height is 71 inches. Write and solve an equation to find Micah's height h at age 2.

$$\begin{array}{r} 2h - 1 = 71 \\ +1 \quad +1 \\ \frac{2h}{2} = \frac{72}{2} \end{array}$$

he was 36 inches tall at
age 2

$$\rightarrow \boxed{h = 36}$$