

Name _____ Date _____ Period _____

Solving Equations Quiz Review

Solve each equation.

1. $6y - 14 - 8y = 4$

2. $4(4m - 3) - m = -57$

3. $3(4b - 2) = -6 + 12b$

4. $2r - (5 - r) = 13 + 2r$

5. $0.5(p + 3) = 3(0.1 + 0.16p)$

6. $2(n + 2) = 4n + 1 - 2n$

7.

$$\frac{n}{2} - \frac{4n}{16} = \frac{2}{3}$$

8. $7(p + 3) + 9 = 5(p - 2) - 3p$

Solve for y.

9. $6x + 3y = 18$

Solve for n.

10. $s = na + n$

Solving Equations Quiz Review

Solve each equation.

1. $6y - 14 - 8y = 4$

$$\begin{array}{r|l} -2y - 14 & = 4 \\ +14 & +14 \\ \hline -2y & = 18 \\ -2 & -2 \\ \hline \boxed{y = -9} \end{array}$$

2. $4(4m - 3) - m = -57$

$$\begin{array}{r|l} 16m - 12 - m & = -57 \\ 15m - 12 & = -57 \\ +12 & +12 \\ \hline 15m & = -45 \\ 15 & 15 \\ \hline \boxed{m = -3} \end{array}$$

3. $3(4b - 2) = -6 + 12b$

$$12b - 6 = -6 + 12b$$

identity

4. $2r - (5 - r) = 13 + 2r$

$$\begin{array}{r|l} 2r - 5 + r & = 13 + 2r \\ -5 + 3r & = 13 + 2r \\ -2r & -2r \\ \hline -5 + r & = 13 \\ +5 & +5 \\ \hline \boxed{r = 18} \end{array}$$

$$5. 0.5(p+3) = 3(0.1 + 0.16p)$$

$$\begin{array}{r|l} 0.5p + 1.5 & = 0.3 + .48p \\ - .48p & \quad - .48p \\ \hline \end{array}$$

$$\begin{array}{r|l} .02p + 1.5 & = 0.3 \\ -1.5 & -1.5 \\ \hline \end{array}$$

$$\begin{array}{r|l} .02p & = -1.2 \\ .02 & .02 \\ \hline \end{array}$$

$$\boxed{p = -60}$$

$$6. 2(n+2) = 4n+1-2n$$

$$2n+4 = 4n+1-2n$$

$$2n+4 = 2n+1$$

no solution

7.

$$16\left(\frac{n}{2} - \frac{4n}{16}\right) = \left(\frac{2}{3}\right)16$$

$$8n - 4n = \frac{32}{3}$$

$$\frac{4n}{4} = \frac{32}{3} \div 4$$

$$n = \frac{32}{3} \cdot \frac{1}{4} = \frac{32}{12}$$

$$\boxed{n = \frac{8}{3} \text{ or } 2\frac{2}{3}}$$

$$8. 7(p+3) + 9 = 5(p-2) - 3p$$

$$7p+21+9 = 5p-10-3p$$

$$7p+30 = 2p-10$$

$$\begin{array}{r|l} -2p & -2p \\ \hline \end{array}$$

$$5p+30 = -10$$

$$\begin{array}{r|l} -30 & -30 \\ \hline \end{array}$$

$$\frac{5p}{5} = \frac{-40}{5}$$

$$\boxed{p = -8}$$

Solve for y.

$$9. 6x + 3y = 18$$

$$\begin{array}{r|l} -6x & -6x \\ \hline 3y & = -6x + 18 \\ \frac{3y}{3} & \quad \frac{-6x + 18}{3} \end{array}$$

$$\boxed{y = -2x + 6}$$

Solve for n.

$$10. s = na + n$$

$$s = n(a+1)$$

$$\frac{s}{a+1} = \frac{n(a+1)}{a+1}$$

$$\boxed{n = \frac{s}{a+1}}$$