

Name: Key
 Block: _____
 Date: _____

Algebra Review Worksheet

Solve each equation. Check your answer.

1. $2z + 9.75 = -5.15$

$$\begin{array}{r} -9.75 \quad -9.75 \\ \hline 2z = -14.9 \end{array} \quad \boxed{z = -7.45}$$

2. $6a - 2a = -36$

$$4a = -36$$

$$\boxed{a = -9}$$

3. $2b - 6 + 3b = 14$

$$5b - 6 = 14$$

$$5b = 20 \quad \boxed{b = 4}$$

4. $13 + 2(5c - 2) = 29$

$$2(5c - 2) = 16 \quad 5c = 10$$

$$5c - 2 = 8 \quad \boxed{c = 2}$$

5. $2(m + 1) = 16$

$$2m + 2 = 16$$

$$2m = 14 \quad \boxed{m = 7}$$

6. $3(t - 12) = 27$

$$3t - 36 = 27$$

$$3t = 63 \quad \boxed{t = 21}$$

7. $-4d + 2(3 + d) = -14$

$$-4d + 6 + 2d = -14 \quad -2d = -20$$

$$-2d + 6 = -14 \quad \boxed{d = 10}$$

8. $5(t - 3) - 2t = -30$

$$5t - 15 - 2t = -30 \quad 3t = -15$$

$$3t - 15 = -30 \quad \boxed{t = -5}$$

9. $\frac{0.4(2s + 4)}{0.4} = \frac{4.8}{0.4}$

$$2s + 4 = 12 \quad 2s = 8$$

$$\boxed{s = 4}$$

10. $0.5(2x - 4) = -17$

$$x - 2 = -17$$

$$\boxed{x = -15}$$

11. $\frac{1}{3}x = \frac{1}{2}$

$$\boxed{x = \frac{3}{2}, 1\frac{1}{2}, 1.5}$$

12. $\frac{2x - 6}{4} = -7$

$$2x - 6 = -28$$

$$2x = -22$$

$$\boxed{x = -11}$$

$\frac{5}{4} \cdot 13. -8 = \frac{4}{5}k \cdot \frac{5}{4}$

$$\frac{5}{4} \cdot -8 = k$$

$$\boxed{k = -10}$$

14. $\frac{5}{6}c - \frac{2}{3}c = \frac{1}{3}$

$$\frac{5}{6}c - \frac{4}{6}c = \frac{1}{3}$$

$$\frac{1}{6}c = \frac{1}{3}$$

$$\boxed{c = 2}$$

15. $-\frac{1}{6}d = -4$

$$-\frac{6}{1} \cdot -\frac{1}{6}d = -4 \cdot -\frac{6}{1}$$

$$\boxed{d = 24}$$