

## Solving Equations

Name \_\_\_\_\_ Period \_\_\_\_\_

Solve each equation. Check your work.

1.  $3x + 7 = 28$

2.  $\frac{x}{3} - 7 = 5$

What difference do you notice between the equations on numbers two and four?

3.  $3(3x - 2) = 30$

4.  $\frac{3x + 9}{3} = 2$

How does this affect the way you solve them?

Equations for numbers 5 and 6 are the same as the equations for 3 and 4. Try to solve them using a different first step. Look at them carefully and think about how you might eliminate a part of the equation or utilize the distributive property.

5.  $3(3x - 2) = 30$

6.  $\frac{3x + 9}{3} = 2$

7.  $\frac{r}{-2} + 7 = 18$

8.  $\frac{n + 7}{-2} = 5$

Solve each equation.

$$1) 6 = \frac{a}{4} + 2$$

$$2) -6 + \frac{x}{4} = -5$$

$$3) 9x - 7 = -7$$

$$4) 0 = 4 + \frac{n}{5}$$

$$5) -4 = \frac{r}{20} - 5$$

$$6) -1 = \frac{5+x}{6}$$

$$7) \frac{v+9}{3} = 8$$

$$8) 2(n+5) = -2$$

$$9) -9x + 1 = -80$$

$$10) -6 = \frac{n}{2} - 10$$

$$11) -2 = 2 + \frac{v}{4}$$

$$12) 144 = -12(x+5)$$

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$$13) -15 = -4m + 5$$

$$14) 10 - 6v = -104$$

$$15) 8n + 7 = 31$$

$$16) -9x - 13 = -103$$

$$17) \frac{n+5}{-16} = -1$$

$$18) -10 = -10 + 7m$$

$$19) -10 = 10(k - 9)$$

$$20) \frac{m}{9} - 1 = -2$$

$$21) 9 + 9n = 9$$

$$22) 7(9 + k) = 84$$

$$23) 8 + \frac{b}{-4} = 5$$

$$24) -243 = -9(10 + x)$$