

Name \_\_\_\_\_

Date \_\_\_\_\_

**Solving Equations Practice**

Solve each equation using POEIO.

1.  $x + 23 = 61$

2.  $x - 16 = 18$

3.  $5x = 105$

4.  $x \div 6 = 12$

5.  $12x = 216$

6.  $x + 27 = 104$

7.  $v - 14 = 32$

8.  $x \div 34 = 5$

9.  $k - 2.3 = 105$

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Determine if the value for  $x$  is a solution to the equation.

10.  $x = 4$ ;  $x \div 2 = 2$

11.  $x = 6$ ;  $2x + 3 = 12$

12.  $x = 10$ ;  $x + 12 = 22$

13.  $x = 48$ ;  $x - 15 = 32$

14.  $x = 65$ ;  $x \div 5 = 13$

15.  $X = 2.5$ ;  $12x = 32$ 

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**Write and solve an equation to find the missing number.**

16. The product of 5 and a number is 30.

17. A number minus three is five.

18. A number divided by 4 is 7.

19. The sum of 2 and a number is 7.

20. A used book costs \$17 less than the same book new. The used book costs \$9. Write and solve an equation to find out how much the new book cost.

21. Four boys decide to equally share some money they found on the ground. If each boy gets \$5, write and solve an equation to find out how much money they found.

22. The United States population in 2005 was twice the population in 1949. If the population of the United States in 2005 was 296 million, write and solve an equation to find the population in 1949 (in millions).

Name \_\_\_\_\_

## Solving Equations

Target: Solves one-step equations using POEIO.

1. How can you get the variable alone in the equation  $y \div 4 = 2$ ?

- a. Divide both sides by 4.
- b. Divide both sides by 2.
- c. Multiply both sides by 4.
- d. Multiply both sides by 2.

Solve each equation. Be sure to write out ALL of the steps when solving for the variable. Circle your final answer.

2.  $413 = 15 + b$

3.  $16h = 80$

4.  $x \div 22 = 7$

5.  $f - 16 = 70$

6.  $\frac{x}{7} = 21$

7.  $p - 65 = 73$

**Target: Explain what it means to solve an equation or inequality.**

8. What does it mean to isolate the variable?

9. What is an equation?

10. Explain the steps involved in solving an equation.

**Target: Determine if a given number is a solution for a specific equation or inequality.**

11. Does the solution  $x = 6$  work for the equation  $17 = x + 11$ ? Why or why not?

12. Does the solution  $m = 12$  work for the equation  $2x + 7 = 219$ ? Why or why not?

13. Does the solution  $x = 5$  work for the equation  $6x - 4 = 34$ ? Why or why not?

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## Solving Equations Homework

Solve each equation using POEIO.

1.  $x + 55 = 161$

2.  $x - 18 = 28$

3.  $5x = 215$

4.  $x \div 8 = 14$

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Determine if the value for  $x$  is a solution to the equation.

5.  $x = 6$ ;  $x \div 2 = 2$

6.  $x = 5$ ;  $2x + 2 = 12$

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Write and solve an equation to find the missing number.

7. The product of 15 and a number is 30.

8. A number minus six is ten.

9. A number divided by 9 is 14.