

Chapter 1 Quiz 2

Form G

Lessons 1-4 through 1-6

Do you know HOW?

Solve each equation. Check your answer.

1. $3(t - 2) = 2t + 11$

2. $\frac{1}{2}(3 - w) = w + 9$

3. Write an equation to solve the problem. Then solve the equation. Maria is 3 years older than her brother, Luis. Luis is 2 years older than their younger sister, Karla. The sum of their ages is 55. How old are the three siblings?

Solve each inequality. Graph the solution.

4. $2(3 - 2n) < 2 - (n + 5)$

5. $-6a \leq 18$ and $5 - 3a > 2$

6. The city's registrar of voters estimates that not less than 48% and no more than 63% of voters will vote in the next mayoral election. Currently, there are 238,000 registered voters in the city. How many people will vote in the next election?

Solve each equation. Check for extraneous solutions.

7. $|2p - 7| + 6 = 11$

8. $|m - 2| = 2m + 5$

9. Solve the inequality $\left| \frac{t - 3}{2} \right| + 1 > 4$ and graph the solution.

10. In a chemical process, between 77 g and 85 g of carbon is added to a mixture. Let C be the amount of carbon. Write an absolute value inequality describing the amount of carbon added.

Do you UNDERSTAND?

11. **Writing** Suppose the sum of three consecutive even integers is given. How can you find the three numbers?
12. **Compare and Contrast** How do the solutions to $|x| \leq 1$, $|x| \leq 0$, and $|x| \leq -1$ differ?