



Algebra 1

Topic: Solving Inequalities Using Addition or Subtraction

Instructions

Solve the following inequalities using addition or subtraction.

- Isolate the variable by using addition or subtraction.
- Check the solution by substituting the value back into the inequality.
- Represent the solution graphically on a number line.

Practice Problems

1. $x + 7 > 12$
2. $3x - 4 \leq 8$
3. $5 + y \geq 11$
4. $2z - 3 < 9$
5. $-4 + p \geq 3$
6. $8 - t < 6$
7. $2x + 5 \leq 13$
8. $-3 + 4y > 8$
9. $6 + x \geq 10$
10. $7 - z < 3$

Multiple Choice Questions

1. Solve: $x + 5 \geq 9$. What is the value of x ?

A) 3

C) 5

B) 4

D) 6

2. Solve: $2x - 3 \leq 7$. What is the value of x ?

A) 4

C) 6

B) 5

D) 3

3. Solve: $y + 6 > 15$. What is the value of y ?

A) 9

C) 10

B) 8

D) 7

4. Solve: $3z - 2 < 7$. What is the value of z ?

A) 5

C) 4

B) 3

D) 2

Challenge Problems

1. $5x + 3 \leq 2x + 12$

2. $3y - 4 > 8$

3. $7 - 2z \leq 5$

4. $6 + 3p < 15$

5. $4x - 7 > 1$

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