

Inequalities Quiz PDF

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Which of the following are symbols used in inequalities? (Select all that apply)

- >
- <
- =
- \geq
- \neq

Which of the following is a linear inequality?

- $x^2 + 3x - 4 > 0$
- $2x + 5 < 10$
- $x^3 - 2x + 1 \leq 0$
- $|x - 1| > 3$

Which of the following are types of inequalities? (Select all that apply)

- Linear
- Quadratic
- Polynomial
- Exponential

Which of the following inequalities have solutions that include $x = 3$? (Select all that apply)

- $x > 2$
- $x < 3$
- $x \geq 3$
- $x \leq 3$

What type of inequality is represented by $|x - 3| \leq 5$?

- Linear

- Quadratic
- Absolute value
- Rational

Which of the following is NOT a solution to the inequality $x < 4$?

- 3
- 0
- 5
- 1

Which of the following are methods to solve inequalities? (Select all that apply)

- Graphing
- Substitution
- Addition or subtraction
- Multiplication or division

In the inequality $3x - 7 > 2$, what is the first step to isolate x ?

- Add 7 to both sides
- Subtract 7 from both sides
- Divide both sides by 3
- Multiply both sides by 3

What does the solution $x \geq 2$ look like on a number line?

- Open circle at 2, shading to the right
- Closed circle at 2, shading to the right
- Open circle at 2, shading to the left
- Closed circle at 2, shading to the left

What symbol is used to represent "greater than"?

- $<$
- $>$
- \leq
- \geq

What happens to the inequality sign when you multiply or divide both sides by a negative number?

- It stays the same
- It reverses
- It becomes an equation
- It disappears

Which notation is used to represent the solution set of an inequality on a number line?

- Interval notation
- Set-builder notation
- Equation notation
- Function notation

Which statements are true about compound inequalities? (Select all that apply)

- They always have "and" between them
- They can be solved separately
- They may use "or" to combine solutions
- They represent a single inequality

What are common mistakes when solving inequalities? (Select all that apply)

- Forgetting to reverse the inequality sign when multiplying by a negative
- Misplacing decimal points
- Incorrectly graphing the solution
- Solving as if it were an equation