



Introduction and Warm-Up (10 minutes)

Welcome to the exciting world of linear equations and inequalities! This interactive math adventure is designed to introduce 7th-grade students to the fundamentals of solving linear equations and inequalities through engaging games and challenges.

1. What is a linear equation?

2. Solve for x: $x + 2 = 7$

3. What is a linear inequality?

Linear Equation Scavenger Hunt (15 minutes)

Find and solve the following linear equations:

1. Solve for x : $2x + 5 = 11$

2. Solve for x : $x - 3 = 2$

3. Solve for x : $4x = 20$

Inequality Match (15 minutes)

Match the following inequalities with their solutions:

1. Match the inequality $x + 2 < 7$ with its solution

2. Match the inequality $3x \geq 12$ with its solution

3. Match the inequality $2x - 1 \leq 5$ with its solution

Math Story Problems (20 minutes)

Solve the following story problems:

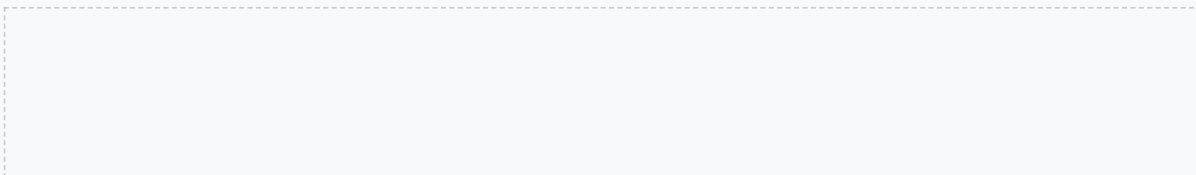
1. Tom has \$15 to spend on video games. Each game costs \$5. How many games can Tom buy?

2. A bakery sells 250 loaves of bread per day. They sell a combination of whole wheat and white bread. If they sell 30 more whole wheat loaves than white bread loaves, how many of each type of bread do they sell?

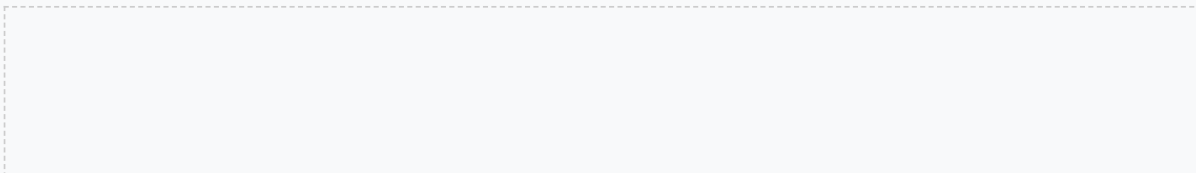
Graphing Linear Equations (20 minutes)

Graph the following linear equations on a coordinate plane:

1. Graph the equation $y = 2x + 3$



2. Graph the equation $x + y = 4$



Assessment (20 minutes)

To assess your understanding of linear equations and inequalities, complete the following quiz:

1. Solve for x in the equation $2x + 5 = 11$

2. Solve the inequality $3x - 2 > 7$

3. Graph the equation $y = 2x + 3$ on a coordinate plane

Extension Activities (20 minutes)

For additional practice and challenge, try the following extension activities:

1. Create your own linear equation puzzle

2. Research and present on a real-world application of linear equations and inequalities

3. Design and create a math escape room focused on linear equations and inequalities

Glossary (10 minutes)

Define the following terms:

1. Linear equation

2. Linear inequality

3. Variable

Review (20 minutes)

Review the steps to solve a linear equation and inequality:

1. Review the steps to solve a linear equation

2. Review the steps to solve a linear inequality

3. Review the concept of graphing linear equations

Conclusion (10 minutes)

What did you learn about linear equations and inequalities?

1. What did you learn about linear equations and inequalities?

2. How can you apply linear equations and inequalities in real-life situations?

3. What are some challenges you faced while learning about linear equations and inequalities?

