

## Introduction to Algebra - Solving Linear Equations

### Learning Objective

Students will be able to understand and solve basic linear equations using inverse operations.

### Introduction

Linear equations are mathematical expressions involving variables raised to the power of one. Solving linear equations involves finding the value of the variable that makes the equation true.

### Key Concepts

- A linear equation is an equation of the form  $ax + b = c$ .
- The goal is to isolate the variable (usually  $x$ ).
- Use inverse operations to 'undo' addition, subtraction, multiplication, or division.
- Always perform the same operation on both sides of the equation to keep it balanced.

### Example Problem

Solve:  $3x - 4 = 11$

Step 1: Add 4 to both sides  $\rightarrow 3x = 15$

Step 2: Divide both sides by 3  $\rightarrow x = 5$

### Adaptations for Autistic Students

- Use clear, step-by-step instructions with visual aids.
- Break down each step and provide ample practice problems.
- Use consistent language and symbols to reduce confusion.
- Allow extra time for processing and understanding each concept.