

**GRADE 7 MATHEMATICS**

# Parallel and Intersecting Lines

*"Ever wondered how we can tell if two lines are parallel or intersecting?"*

**In this module, you will:**

- Understand Parallel and Intersecting Lines
- See how it works in the real world
- Master the basics in 10 minutes

# The Big Picture

02

Before we dive into details, let's understand what is really happening here.

- Lines can be parallel or intersecting
- Parallel lines lie on the same plane and never meet
- Intersecting lines meet at a point and form angles



## Why this matters

Understanding parallel and intersecting lines is important in architecture, design, and even navigation.

## What are Parallel Lines?

Parallel lines are two lines that lie on the same plane and never meet, no matter how far they are extended.

## What are Intersecting Lines?

Intersecting lines are two lines that meet at a point and form angles.

## Linear Pairs and Vertically Opposite Angles

When two lines intersect, they form linear pairs and vertically opposite angles. Linear pairs add up to  $180^\circ$ , while vertically opposite angles are equal to each other.



## Think of it like...

Parallel lines are like railway tracks that never meet, while intersecting lines are like roads that meet at a crossroads.



## In Reality...

When two lines intersect, they form four angles. These angles can be equal or supplementary to each other.

# Visual Flow

05

Let's map this out simply.

**Draw two lines on a plain sheet of paper so that they intersect.**



**Measure the four angles formed with a protractor.**



**Look for linear pairs and vertically opposite angles.**



**Draw a pair of lines and a transversal to form two distinct angles.**

## Pause & Think

06

Let's stop for a moment. Don't worry about getting the "right" answer yet.



**Can you think of a real-life example where parallel or intersecting lines are used?**

*Take 30 seconds to think about this.*

## Quick Check

07

Let's see what you've got.

### ? What are parallel lines?

Answer: Two lines that lie on the same plane and never meet.

### ? What is a linear pair?

Answer: Two angles that add up to  $180^\circ$  and are formed by two intersecting lines.

## Key Takeaways

- Parallel lines lie on the same plane and never meet.
- Intersecting lines meet at a point and form angles.
- Linear pairs and vertically opposite angles are formed by intersecting lines.



### Confidence Boost

You now have a solid understanding of parallel and intersecting lines. Keep practicing and you'll be a pro in no time!