

**GRADE 7 MATHEMATICS**

# Parallel and Intersecting Lines

*"Ever wondered how artists create perfect straight lines in their artwork?"*

**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.

- Parallel lines never touch, no matter how far they're extended.
- Intersecting lines meet at a single point and form angles.
- Perpendicular lines meet at a right angle ( $90^\circ$ ).



## Why this matters

Understanding parallel and intersecting lines is essential in art, architecture, and engineering.

## What are Parallel Lines?

Parallel lines are lines that lie on the same plane and never meet, no matter how far you extend them.

## What are Intersecting Lines?

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

## What are Perpendicular Lines?

Perpendicular lines are lines that meet at a right angle ( $90^\circ$ ).



## Think of it like...

Examples of parallel lines like railway tracks or a horizon line in a landscape painting.



## In Reality...

When two lines intersect, they form four angles, and opposite angles are equal.

# Visual Flow

05

Let's map this out simply.

**Draw two lines on a plain sheet of paper and measure the angles formed.**



**Identify linear pairs and vertically opposite angles in a diagram.**



**Recognize parallel lines in a diagram and use arrow marks to show they're parallel.**



**Draw a transversal to form eight angles with a maximum of four distinct angle measures.**

## 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 scenario where parallel lines are used?**

*Take 30 seconds to think about this.*

## Quick Check

07

Let's see what you've got.

**? What is the sum of adjacent angles formed by two intersecting lines?**

Answer:  $180^\circ$

**? How many angles are formed when a transversal intersects two lines?**

Answer: 8

## Key Takeaways

- Parallel lines never touch, no matter how far they're extended.
- Intersecting lines meet at a single point and form angles.
- Perpendicular lines meet at a right angle ( $90^\circ$ ).



### Confidence Boost

You now understand the basics of parallel and intersecting lines - great job!