

QUICK REFERENCE SHEET

Coordinate Geometry Quick Guide

A better quick guide to coordinate distance and slope, with sketch-first checks and subtraction-order reminders.

QUICK OVERVIEW

Category: geometry trigonometry

Includes 1 related guide page.

Links back to 2 calculator tools.

FORMULA HIGHLIGHTS

Distance

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

Slope

$$m = (y_2 - y_1) / (x_2 - x_1)$$

CORE RELATIONSHIPS

- Distance comes from Pythagorean reasoning on horizontal and vertical changes.
- Slope is rise over run.
- Vertical lines have undefined slope.

WORKED EXAMPLES

(1, 2) to (5, 5): distance 5, slope 3/4.

(-2, 4) to (3, -1): slope -1, matching the visual fall from left to right.

QUICK REMINDERS

- Keep subtraction order consistent in slope calculations.
- Distance is never negative.
- A sketch often reveals a sign mistake instantly.