

Finding Slope Three Ways

8th Grade

From a graph, from two points, or from a table.

Three starting points, one idea: how much does y change for each unit of x?

FROM A GRAPH

1

Pick two points where the line crosses grid corners. Count rise, then run.

FROM TWO POINTS

2

$m = (y_2 - y_1)/(x_2 - x_1)$. Subtract in the same order both times.

FROM A TABLE

3

Divide the change in y by the change in x between any two rows.

FROM AN EQUATION

4

Rearrange into $y = mx + b$. The number in front of x is m.

TABLE EXAMPLE

x: 1, 3, 5 · y: 4, 10, 16

$\Delta y = 6$ for $\Delta x = 2$, so $m = 3$

If a table gives different slopes for different pairs, the relationship is not linear.