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In Class Notes

The $\qquad$ of a line describes how steep the line is.

Slope $=$


Slope

Positive Slope


The line rises from left to right.

Negative Slope


The line falls
from left to right.

Slope of 0


The line is horizontal.

Undefined Slope


The line is vertical.

Describe the slope of each line, then find each slope (using the graph and the formula).
Notes:
Ex:)
a.

b.

OYO:)
a.

b.


## Finding the slope of horizontal \& vertical lines

Find the slope of each line using the graph and the formula.
Notes:

Ex:) a.

b.


## Key Idea

## Parallel Lines and Slope

Lines in the same plane that do not intersect are parallel lines. Nonvertical parallel lines have the same slope. All vertical lines are parallel.

Ex:)


OYO:) What if? The blue line passes through ( $-4,-3$ ) and ( $-3,2$ ).
Notes: Are any of the lines parallel? Explain

Ex:) The table shows the distance $y$ (in miles) of a space probe from a comet $x$
Notes: minutes after it begins its approach. The points in the table lie on a line.
Find and interpret the slope of the line.

| $\boldsymbol{x}$ | $\mathbf{1}$ | 4 | 7 | 10 |
| :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ | 8 | 6 | 4 | 2 |

OYO:) You in-line skate from an elevation of 720 feet to an elevation of 750
feet in 30 minutes. Your friend in-line skates from an elevation of 600 feet to an elevation of 690 feet in one hour. Compare your rates of change in elevation.


