

3.5 Slope

Math 55 Professor Busken

Objectives

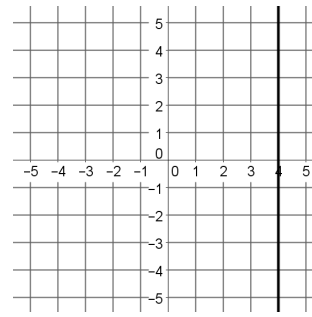
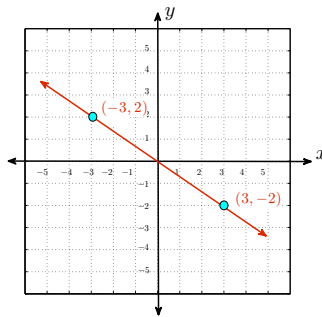
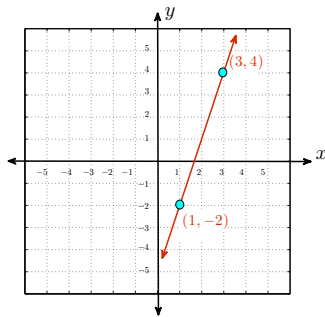
- Rates and Slope.
- Horizontal and vertical lines
- Applications

Exercises

1. Find the rate at which total revenue of Bob's company is changing.



2. Find the slope of each line. If the slope is undefined, state this.



3. Find the slope, if it exists, of a line containing the given pair of points

- a) $(1, 8)$, $(6, 9)$ b) $(-4, 2)$, $(2, -3)$ c) $(-5, -1)$, $(2, -3)$
- d) $(5, -2)$, $(-4, -2)$ e) $(-6, -3)$, $(-6, 4)$

4. Solve

- (a) Bolton Peak rises from a base elevation of 1500 ft to a summit elevation of 3300 ft over a horizontal distance of 6000 ft. Find the grade of Bolton Peak.
- (b) A river falls vertically 36 ft over a horizontal distance of 144 ft. Find its slope.

Answers: 1) \$4,375/yr 2a) 3 2b) $-2/3$ 2c) undefined 3a) $1/5$ 3b) $-5/6$ 3c) $-2/7$
3d) 0 3e) undefined 4a) $3/10$ 4b) $1/4$