

3.4 Rates

Math 55 Professor Busken

Objectives

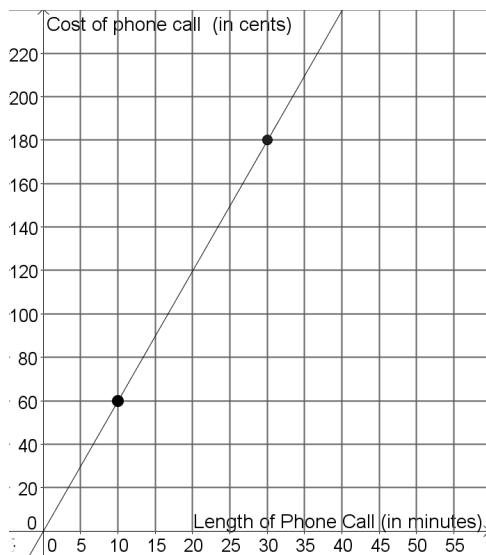
- Find rates of change.
- Visualize rates of change

Exercises

1. Bob's company's revenue is \$430,000. Three years earlier, it was \$385,000. Find the rate at which revenue is increasing.
2. Julie biked 200 miles in 16 hours. What is her average rate (speed)?
3. Jilly rented a van with a full tank of gas and 13,012 mi on the odometer. Three days later, she returned it with 13,256 mi on the odometer. The rental agency charged her \$117 for the rental and needed 8 gal to fill the tank.

Find each of the following:

- (a) Find the car's rate of gas consumption, in miles per gallon
 - (b) Find the average cost of the rental, in dollars per day.
 - (c) Find the average rate of travel, in miles per day.
 - (d) Find the rental rate, in cents per mile.
4. The graph below shows data from a recent phone call between Jilly and her friend who lives in Europe. At what rate was Jilly being billed?



Answers: 1) \$15,000/yr 2) 12.5 mph 3a) 30.5 mpg 3b) \$39/day 3c) $81.\bar{3}$ mi/day 3d) 48¢/mi 4) 6¢/min