

8.1 Comparing & Interpreting Rates

A **ratio** is _____ and can be written _____ ways:

1. _____
2. _____
3. _____

A **rate** is a _____ of _____.

World class sprinters can run 100m in about 9.8s. If they could run at this rate for a longer period of time, estimate how far they could run in a minute and an hour.



A **unit rate** is a _____ in which the _____ is equal to ____.

Which is the better buy? 200g of coffee beans for \$3.85 or 1 pound of coffee for \$9.60?

Need to know: _____

Your fingernails grow at about 0.8 mm/week. Your toenails grow at about 19.2 mm/year. Do your toenails or fingernails grow faster? By how much?



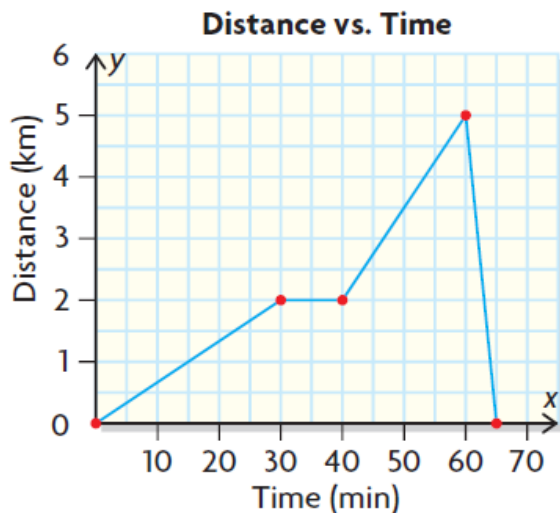
Paper towels are sold in a 2 roll package for \$2.49 and a 12 roll package for \$12.99.

What package has the lower unit price?

How much would you save by buying a 12 roll package rather than six 2 roll packages?

When deciding which package size is the better buy for you, what should you consider in addition to the unit price?

Describe a scenario that could be represented by this graph. Compare the rates (hint: slope of a line!) shown, and discuss why the rates may have changed.



When making a decision about buying a car, one factor some consumers consider is fuel efficiency.

The gas tank on Mario's new car has a capacity of 55 L. The owner's manual claims that the fuel efficiency is 7.6 L/100 km on the highway. Use the information Mario recorded below to determine on which leg of the trip his fuel economy was the best.

Fill-up	Total Distance Driven (km)	Quantity of Gas Purchased (L)
1	645	48.0
2	1037	32.1