

Section 5.9 - Exploring Rates

Section 5.10 - Comparing Rates

Rate is a ratio that compares two quantities with different units.

km/hr	words/min
m/lap	\$/hr

The key to solving problems with rate is to find the rate of one unit first.

ie: 70 beats/min is the rate of the average human heart beat (70 beats in one minute)

Example #1:

Susan earns \$250 for a 40 hour work week. What is her rate per hour?

\$:hr
250:40

$$\frac{250}{40} = \frac{?}{1} \quad \text{Cross Multiply and Divide}$$

$$250 \times 1 \div 40 = \$6.25$$

Susan earns \$6.25/hr

Example #2:

Ms. Reccord drives 180km in 3 hours. If she continues at this rate, how far will she drive in 5 hours? (Hint: Find how far she goes in one hour first, then times it by 5)

180:3
?:1

$$180 \times 1 \div 3 = 60 \text{ km/hr}$$

$$60 \times 5 = 300$$

Ms. Reccord will drive 300 km in 5 hours

Example # 3:

Kevin is trying to see which car offers the best gas mileage. A Honda civic can go 468 km on 21 Liters of gas. A Ford Focus can go 687 km on 36 Liters of gas. Which car has the better gas mileage?

Example #4 - Better buy Questions

Which is the better buy?

600 mL of detergent at \$2.09 OR 700 mL of detergent at \$2.60

$$2.09 \div 600 = 0.003483333$$

$$2.60 \div 700 = 0.0037142857$$

The lower amount is the better buy!!!

Try this one...

275 g of peanuts for \$2.98 OR 575 g of peanuts for \$5.48

Pull

Text Book: p. 298, #'s 4 - 18, p. 303, #'s 5 - 14

Work Book: 125 - 128

Work Sheet: Working with Rate