

Math 7 - Unit 3
Day 2 - Rates & Unit Rates Review

Lesson Objectives:

- I can find and compute unit rates associated with ratios of fractions.



A pitcher for a baseball team is able to throw a fastball approximately 132 feet in 1 second. How fast would this be in miles per hour?

K	W	L
$S = \frac{132 \text{ ft}}{1 \text{ sec}}$ $60 \text{ sec} = 1 \text{ min}$ $60 \text{ min} = 1 \text{ hour}$ $3 \text{ ft} = 1 \text{ yd}$ $5280 \text{ ft} = 1 \text{ mile}$? $\frac{\text{miles}}{\text{hour}}$	

A rate is a ratio (comparison) of two measurements with different units of measure.

300 miles for 11 gallons of gas 35 miles in 1/2 hour

What are some other examples of rates that you've heard of outside of math class?

A rate with a denominator of 1 is called the unit rate.

\$0.50 for 1 apple \$2.50/ 1 gallon of gas

There are two different methods for finding unit rate.

Method 1

Method 2



Which bottle of cleaner is the better deal?

Unit analysis multiplies a number or expression by a unit rate.

Bob works a holiday job shoveling snow for his neighbors. He spent 6 hours shoveling snow on Saturday. He earned \$12 for each hour he worked. How much money did Bob earn on Saturday?

$$6 \text{ hr} \cdot \frac{\$12}{1 \text{ hr}} = \$72$$



A pitcher for a baseball team is able to throw a fastball approximately 132 feet in 1 second. How fast would this be in miles per hour?

K	W	L
		$\frac{132 \text{ ft}}{1 \text{ sec}} \cdot \frac{1 \text{ mi}}{5280 \text{ ft}} \cdot \frac{60 \text{ sec}}{1 \text{ min}} \cdot \frac{60 \text{ min}}{1 \text{ hr}}$ $= \frac{475,200 \text{ mi}}{5280 \text{ hr}} = 90 \text{ mph}$

Homework

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* Individual Think Time *



What to do if you get stuck...

1. Reread the problem. Did you write it down correctly?
2. Reread your notes. Is there a problem similar that we did together in class?
3. Find a problem similar in your book. Try this one to see if it helps.
4. Skip the problem until the end of Individual Think Time. Then ask an "educated" question of a neighbor or Mrs. Call.

Today we're working by...

