

Rates

Lesson 1-1

- **Rate:** A comparison of 2 quantities that have different units of measure (different kind of units like beats per minute)
- **Unit Rate:** A ratio written as "some number to 1" (like miles per hour) **denominator of 1

Rates and Unit Rates

| | |
|--|---|
| ↓ | ↓ |
| $\frac{60 \text{ miles}}{3 \text{ hours}}$ | $\frac{20 \text{ miles}}{1 \text{ hour}} = 20 \text{ miles/hour}$ |
| $\frac{40 \text{ words}}{2 \text{ minutes}}$ | $\frac{20 \text{ words}}{1 \text{ minute}} = 20 \text{ words/minute}$ |

❖ Example 1: Finding a Unit Rate



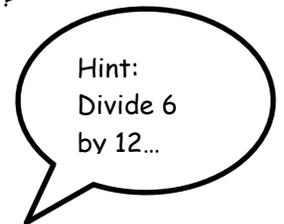
Spring

1. During peak growing season, the kudzu vine can grow 6 inches in 12 hours.

- What is the growth rate of kudzu in inches per hour?

6 inches in 12 hours = _____

= _____



Early Fall

YOUR TURN:

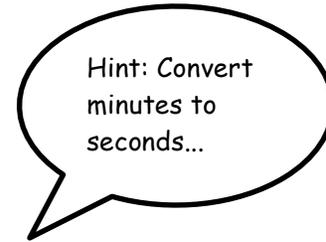
Find the Unit Rate.

1. \$54 in 6 hours ; \$____ per _____hour
2. 68 miles in 4 days ; _____miles per _____day
3. 2 cups in 8 servings ; _____cups per _____serving

❖ **Example 2: Finding An Average Speed**

2. A skater took 2 minutes 30 seconds to complete a 1500 meter race.

➤ What was the skater's average speed?



2 minutes and 30 seconds = _____ seconds

1500 meters in _____ seconds = _____

= _____

❖ **Example 3: Comparing Unit Rates**

3. A store sells the same pasta the following two ways: 10 pounds of bulk pasta for \$15.00 and 2 pounds of packaged pasta for \$3.98. To determine which is the better buy, find the unit price for both types.

10 pounds for \$15.00 =

2 pounds for \$3.98 =

YOUR TURN:

1. It takes you 1 minute 40 seconds to walk 550 feet. What is your average speed?

2. Which of the following is the better buy: 2 AA batteries for \$1.50 or 6 AA batteries for \$4.80?