

# ing Rates – Novice



Name: \_\_\_\_\_

Key

## Learning Goals:

1. I will be able to understand how to write a rate
2. I will understand how to write a unit rate
3. I will understand how to use rates and unit rates in word problems

## Notes:

Terminology to Know:

1. Rate:

a. Example:

Comparison of things with two different units  
5 laps / 120 laps

2. Unit Rate:

a. Example:

Comparison of things with different units where the second rate has been reduced so that it is 1 unit.

ex) \$8/hr

## Learning Goal #1: Rates

1. Express each sentence as a rate:

a. Steve likes to walk slowly. He usually walks 10 kilometres in 120 minutes.

10km / 120min

b. Emily likes to swim fast. She can swim 5 laps of the pool in 1 minute

5 / 1min

c. Gage has a very fast pitch. He can throw the ball 80 m in 4 seconds.

80m / 4s

## Learning Goal #2: Unit Rates

1. Mary cycled 30 kilometres in 2 hours. What was his speed? Show your work.

$$30 \text{ km} / 2 \text{ hr} = 15 \text{ km} / \text{hr}$$

2. Mrs. Arcuri's dog ran 9 blocks in 3 minutes. What is his speed? Show your work.

$$9 \text{ b} / 3 \text{ min} = 3 \text{ b} / 1 \text{ min}$$

3. A container of yoghurt costs \$4.00 for 400 grams. How much does 100 grams cost? Show your work.

$$4 \$ / 400 \text{ g} = 1 \$ / 100 \text{ g}$$

4. A package of movies costs \$48.00 and in the package there are 6 movies. What is the cost per movie? Show your work.

$$48 \$ / 6 \text{ movies} = 8 \$ / 1 \text{ movie}$$

**Learning Goal #3: Comparing Rates**

There are three different sizes to Summerland Sweets fruit candies. The smallest box costs \$3.00 and contains 10 candies. The medium size box costs \$6.00 and contains 15 candies. The largest box costs \$10.00 and contains 20 candies. Which is the best deal? Show your work.

$$\begin{array}{l} \text{Sm} \\ \hline 3.00 \$ = \frac{0.3}{1} \\ \hline 10 \end{array}$$

$$\begin{array}{l} \text{M} \\ \hline 6.00 \$ = \frac{0.4}{1} \\ \hline 15 \end{array}$$

$$\begin{array}{l} \text{Lg} \\ \hline 10.00 \$ = \frac{0.5}{1} \\ \hline 20 \end{array}$$

2. Mrs. Arcuri wants to find the best deal for her morning latte. The Beanery costs \$4.50 for 15 oz. The Good Omen café costs \$4.00 for 20 oz. And Tim Horton's costs \$3.00 for 15 oz. Which is the best deal? Show your work.

Beanery

$$\begin{array}{l} 4.50 \$ \div 15 = \frac{0.3}{1} \\ \hline 15 \text{ oz} \end{array}$$

Good Omens

$$\begin{array}{l} 4.00 \$ = \frac{0.2}{1} \\ \hline 20 \text{ oz} \end{array}$$

Tim's

$$\begin{array}{l} 3.00 \$ = \frac{0.2}{1} \\ \hline 15 \text{ oz} \end{array}$$

3. Save-On has 10 limes for \$5.00. Superstore has 18 limes for \$6.00. Costco has 32 limes for \$8.00. Which is the best deal? Show your work.

Save On

$$\begin{array}{l} 5.00 \$ = \frac{0.5}{1} \\ \hline 10 \end{array}$$

Superstore

$$\begin{array}{l} 6.00 \$ = \frac{0.33}{1} \\ \hline 18 \end{array}$$

Costco

$$\begin{array}{l} 8.00 \$ = \frac{0.25}{1} \\ \hline 32 \end{array}$$

4. Mrs. Arcuri drove to Merritt for a hockey tournament. She travelled 120 km in 2 hours. What was her speed? Show your work?

$$\frac{120 \text{ km}}{2 \text{ h}} = \frac{60 \text{ km}}{1 \text{ hr}}$$