

BUBBLE GUM LAB

Use your understanding of unit rate to explore the unit rate of chewing bubble gum.

QUESTION: How does the size of the chomp impact my chewing speed?

HYPOTHESIS:

MATERIALS: Bubble Gum, Pencil, Data Sheet, Trash Can, Timer

PROCEDURE:

1. Begin chewing your gum at a comfortable pace.
2. Use the timer to determine how many chomps you can do in a specific period of time. Record your results in the table.
3. Continue with the different trials listed on the data sheet.
4. Calculate the speed at which you can chew gum.

PRE LAB INFORMATION AND QUESTIONS:

$$\text{speed} = \frac{\text{number of chomps}}{\text{time}}$$

How is the speed related to the unit rate?

Describe the process for finding unit rate.

Use a calculator, if necessary, to help calculate the speed.

data:

COMFORTABLE-Sized CHOMP

LARGE-Sized CHOMP

TRIAL	# of CHOMPS	time	Speed
1		15 Sec	
2		30 Sec	
3		60 Sec	

TRIAL	# of CHOMPS	time	Speed
1		15 Sec	
2		30 Sec	
3		60 Sec	

SMALL-Sized CHOMP

TRIAL	# of CHOMPS	time	Speed
1		15 Sec	
2		30 Sec	
3		60 Sec	

POST-LAB QUESTIONS:

How did you use your knowledge of unit rate to compare the data?

Using the information you recorded above, what could you expect to happen if you were given 5 minutes to chew comfortably?

Hayes and Nolan each chomped their gum comfortably. Hayes chomped 30 chomps per minute and Nolan chomped 70 chomps in two minutes. How do Hayes and Nolan's speed compare? Predict who will be able to get to 500 chomps first?

CONCLUSIONS:
