

INTRO TO RATES

Let's practice finding a rate! Take your first and second fingers and find your pulse either on your wrist or on your neck. When time begins, silently count the number of beats in one minute. Record your results below, and then exchange your results with two neighbors.

YOU

TIME (MINS)	BEATS

NEIGHBOR

TIME (MINS)	BEATS

NEIGHBOR

TIME (MINS)	BEATS

RATE: _____

RATE: _____

RATE: _____

Why is it beneficial to determine the rate of each person?

RATE

- A rate is a ratio that describes the comparison by _____ of two quantities with different units.

Ex: total miles per total hours, total meters per total seconds

UNIT RATE

- The unit rate describes the _____, or the rate when the _____ is one.

Ex: \$0.27 per ounce, 40 miles per gallon

Calculate the rate and unit rate of each situation below.

1. Tasha earns \$162 for 12 hours of work.

Rate: _____

Unit Rate: _____

2. An electric scooter will travel 15 miles on two hours of charge.

Rate: _____

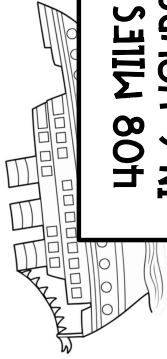
Unit Rate: _____

3. Complete the table by using the following information.

SITUATION	RATE	UNIT RATE
a. Samuel can do 120 jumping jacks in two minutes.		
b. A large plane cruises at 530 miles per hour.		
c. A babysitter gets paid \$60 for 4 hours of work.		

Use your understanding of rates and solving ratio problems to answer the questions below.

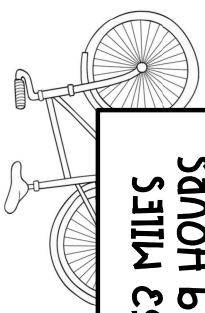
4. Use the information about the various methods of transportation to answer the questions below.



**408 MILES
IN 6 HOURS**



**2,320 MILES
IN 4 HOURS**



**153 MILES
IN 9 HOURS**

- How many miles can the plane travel in one hour?
- How many miles can a bicyclist travel in one hour?
- In a one-hour period, how much further can the boat travel than the bike?

5. Brodie and Cameron earn extra money by mowing lawns. Brodie earned \$90 in 6 hours and Cameron earned \$52 in 4 hours. Who earns more money per hour?

6. Using the table below, determine the unit rate of pies per minute at a pie eating contest.

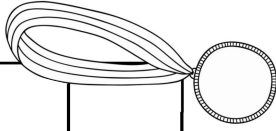
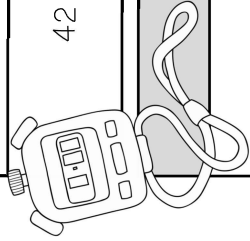
# OF MINUTES	4	6	8	10
# OF PIES	18	27	36	45

Summarize today's lesson:

INTRO TO RATES

Coach Jaminez recorded the results of each student's performance in a PE fitness test. Write the rates for each exercise, followed by the unit rate and a prediction for the number of exercises the students could complete in 5 minutes.

NICO	DATE	UNIT RATE	5 MINUTES
78 sit-ups in 2 minutes			
42 push-ups in 3 minutes			
NATALIE	DATE	UNIT RATE	5 MINUTES
87 sit-ups in 3 minutes			
26 push-ups in 2 minutes			
NEILSON	DATE	UNIT RATE	5 MINUTES
105 sit-ups in 3 minutes			
44 push-ups in 4 minutes			



In order to be recognized, a student must beat the rate in both categories:

SIT UPS

35 SIT-UPS/MINUTE

PUSH UPS

12 PUSH-UPS/MINUTE

a. Who will be recognized? Justify your solution.

b. Explain why calculating each student's unit rate makes it easier to compare.
