

Unit 2 Test corrections are due tomorrow!

Corrections must follow the guidelines on the pink sheet you received yesterday.

Module 6 test is Friday

Review for this test is from pages 167-168 in your textbook pages. Work on this and we will go over these questions on Thursday.

Open to page 153 (11-17) from Friday

Take out worksheet E7/E8 from Monday

Oct 22-4:36 PM

tb 153

Write three ratios equivalent to the ratio described in each situation.

11. The ratio of cups of water to cups of milk in a recipe is 1 to 3.

2 to 6, 3 to 9, 4 to 12

12. The ratio of boys to girls on the bus is $\frac{20}{15}$.

$\frac{4}{3}, \frac{40}{30}, \frac{100}{75}$

13. In each bouquet of flowers, there are 4 roses and 6 white carnations. Complete the table to find how many roses and carnations there are in 4 bouquets of flowers.

Roses	4	8	12	16	20
Carnations	6	12	18	24	30

16 roses and 24 carnations

Oct 23-8:04 AM

14. Ed is using the recipe shown to make fruit salad. He wants to use 30 diced strawberries in his fruit salad. How many bananas, apples, and pears should Ed use in his fruit salad?

Fruit Salad Recipe	
4	bananas, diced
3	apples, diced
6	pears, diced
10	strawberries, diced

12 bananas, 9 apples, and 18 pears

15. A collector has 120 movie posters and 100 band posters. She wants to sell 24 movie posters but still have her poster collection maintain the same ratio of 120:100. If she sells 24 movie posters, how many band posters should she sell? Explain.

Ratio
 $\frac{120}{100} = \frac{96}{80}$
 (120 ÷ 5 = 24, 100 ÷ 5 = 20, 24 × 4 = 96, 20 × 4 = 80)
 equivalent

120 movie
 $- 24$
 96 movies

band
 $100 - 20 = 80$
 eft.

05	2	4	6
100	3.5	7	10.5

16.5 cups

16. Bob needs to mix 2 cups of orange juice concentrate with 3.5 cups of water to make orange juice. Bob has 6 cups of concentrate. How much orange juice can he make?

$2c (OJ) + 3.5c (H_2O)$
 $\times 3$
 $6 + 10.5$

Oct 23-8:04 AM

17. **Multistep** The ratio of North American butterflies to South American butterflies at a butterfly park is 5:3. The ratio of South American butterflies to European butterflies is 3:2. There are 30 North American butterflies at the butterfly park.

- a. How many South American butterflies are there?
 b. How many European butterflies are there?

18
 12

Worksheets E7 and E8

Oct 23-8:06 AM

LESSON
6.2 Rates



Understand the concept of a UNIT RATE and use rate language.

Oct 22-9:24 PM

What do all of these have in common?

A healthy, adult heart beats approximately 70 times per minute.

A green ECG (heart rate) graph on a black grid background.

A person riding a brown horse.

80 BPM

A pulse of more than 80 beats per minute that doesn't slow down after two minutes of rest can be a sign of heat stroke

HYGAIN logo featuring a horse head.

DUNKIN' DONUTS logo with a donut icon.

1 dozen donuts for \$12.00

10 donuts for \$13.00

A row of various colorful donuts.

Rhythm

- Beats per minute
- Beats per measure (time signature)

Musical notation on a staff showing a 4/4 time signature with four quarter notes and a 3/4 time signature with three quarter notes.

A white silhouette of a person on a stationary bike.

100 BPM
Beats Per Minute

A blue ECG (heart rate) graph.

Oct 22-9:26 PM

A **unit rate** compares a quantity to one unit of another

A healthy, adult heart beats approximately 70 times per minute.

80 BPM

A pulse of more than 80 beats per minute that doesn't slow down after two minutes of rest can be a sign of heat stroke

HYGAIN

DUNKIN' DONUTS

1 dozen donuts for \$12.00

10 donuts for \$13.00

Rhythm

- Beats per minute
- Beats per measure (time signature)

100 BPM

Beats Per Minute

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A **rate** is a comparison of two quantities that have different units.

Chris drove 107 miles in two hours. This can be expressed as the rate shown at the right. Notice that the units are different: miles and hours. The rate is $\frac{107 \text{ miles}}{2 \text{ hours}}$.

A **unit rate** is a rate in which the second quantity is one unit. When the first quantity in a unit rate is an amount of money, the unit rate is sometimes called a *unit price* or *unit cost*. pg.156

The rate is $\frac{107 \text{ miles}}{2 \text{ hours}}$, -----> A **unit rate** is $\frac{53.5 \text{ miles}}{1 \text{ hour}}$

The first quantity in a unit rate can be less than 1.

C A cruise ship travels 20 miles in 50 minutes. How far does the ship travel per minute?
The ship travels 0.4 mile per minute.

$$\frac{20 \text{ miles}}{50 \text{ minutes}} = \frac{0.4 \text{ mile}}{1 \text{ minute}}$$

$\frac{20}{50} = \frac{2}{5}$ $\frac{2}{5} = \frac{0.4}{1}$

Oct 22-9:41 PM

YOUR TURN

pg.157

3. There are 156 players on 13 teams. How many players are on each team? 12 players per team

$$\begin{array}{r} 12 \\ 13 \overline{)156} \\ \underline{-13} \\ 26 \\ \underline{-26} \\ 0 \end{array}$$

Rate

$$\frac{156 P}{13 T}$$

Unit Rate

$$\frac{12 P}{1 T}$$

YOUR TURN

pg.158

4. Petra jogs 3 miles in 27 minutes. At this rate, how long would it take her to jog 5 miles? Show your work.

$$\frac{3 \text{ mi}}{27 \text{ min}} = \frac{3}{3} = \frac{1 \text{ mi} \times 5}{9 \text{ min} \times 5} = \frac{5 \text{ mi}}{45 \text{ min}}$$

Oct 22-9:47 PM

A **unit rate** is a rate in which the second quantity is one unit. When the first quantity in a unit rate is an amount of money, the unit rate is sometimes called a *unit price* or *unit cost*. pg.156

Yoga Classes



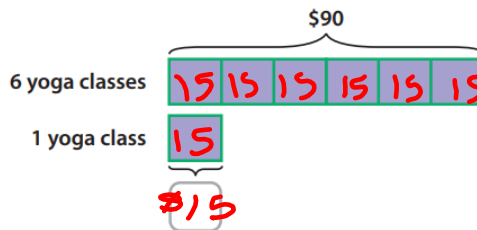
Gerald pays \$90 for 6 yoga classes. What is the cost per class?

Use the information in the problem to write a rate: $\frac{\$90}{6 \text{ classes}}$

To find the unit rate, divide both quantities in the rate by the same number so that the second quantity is 1.

$$\frac{\$90}{6 \text{ classes}} \div 6 = \frac{\$15}{1 \text{ class}}$$

Gerald's yoga classes cost \$15 per class.



The cost of 2 cartons of milk is \$5.50.

What is the unit price?

The unit price is \$2.75 per carton of milk.

$$\frac{\$5.50}{2 \text{ cartons}} \div 2 = \frac{\$2.75}{1 \text{ carton}}$$

Oct 22-9:49 PM

Mason's favorite brand of peanut butter is available in two sizes. Each size and its price are shown in the table. Use the table for 1 and 2. (Explore Activity)

pg.158

1. What is the unit rate for each size of peanut butter?

Regular: \$ 0.21 per ounce

Family size: \$ 0.19 per ounce

	Size (oz)	Price (\$)
Regular	16	3.36
Family Size	40	7.60

2. Which size is the better buy? Family

Unit rate = Unit Price

$\frac{\text{Price}}{\text{Unit}}$

Family

$$\frac{7.60}{40}$$

Reg

$$\frac{3.36}{16}$$

$$40 \overline{) 7.60} \\ \underline{40} \\ 360 \\ \underline{360} \\ 0$$

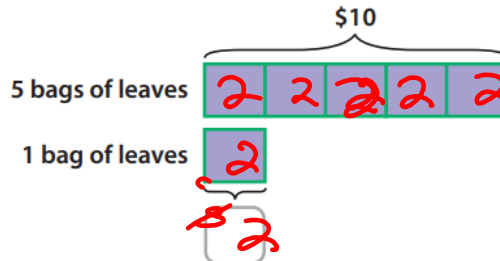
$$16 \overline{) 3.36} \\ \underline{32} \\ 16 \\ \underline{16} \\ 0$$

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pg.158

3. Martin charges \$10 for every 5 bags of leaves he rakes. Last weekend, he raked 24 bags of leaves. How much money did he earn? (Example 1)

$24 \times 2 = 48$ for 24 bags of leaves



6. A particular frozen yogurt has 75 calories in 2 ounces. How many calories are in 8 ounces of the yogurt? (Example 2)

$$\frac{75 \text{ cal}}{2 \text{ oz}} \quad \frac{300 \text{ cal}}{8 \text{ oz}}$$

$\xrightarrow{\times 4}$

7. The cost of 10 oranges is \$1. What is the cost of 5 dozen oranges? (Example 2)

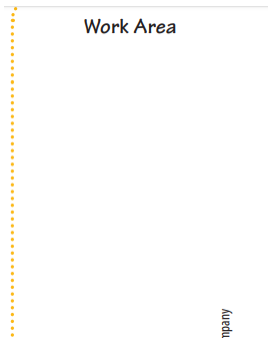
$$\frac{\$1}{10} \times 6 \quad \frac{\$6}{60}$$

Oct 22-9:52 PM

HW - pgs 159-160 (9-15)

You may use the white space on pg 159 to show your work, but you must box in and number your work.

You may use the "work area" on pg 160 to show your work, but you must box in and number your work.



ow a lawn. e time
Earned
2.50
2.50
each, how

Oct 22-9:55 PM