

Start correcting page 176 (1-5)

1. The ratio of oxygen atoms to sulfur atoms in sulfur dioxide is always the same. The table shows the numbers of atoms in different quantities of sulfur dioxide. Complete the table. (Explore Activity 1)

Sulfur atoms	6	9	21	27
Oxygen atoms	12	18	42	54

What are the equivalent ratios shown in the table?

$\frac{O_2}{S_2}$   $\frac{12}{6} = \frac{18}{9} = \frac{42}{21} = \frac{54}{27}$

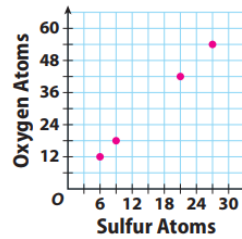
3. Stickers are made with the same ratio of width to length. A sticker 2 inches wide has a length of 4 inches. Complete the table. (Explore Activity 1)

Width (in.)	2	4	7	8
Length (in.)	4	8	14	16

What are the equivalent ratios shown in the table?

$\frac{2}{4} = \frac{4}{8} = \frac{7}{14} = \frac{8}{16}$

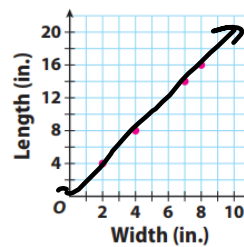
2. Use the table in Exercise 1 to graph the relationship between sulfur atoms and oxygen atoms. (Explore Activity 2)



Discrete - counted

Dots

4. Graph the relationship between the width and the length of the stickers from Exercise 3. (Explore Activity 2)

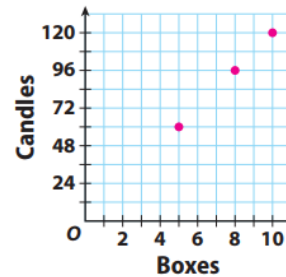


Continuous

Oct 29-1:43 PM

5. Five boxes of candles contain a total of 60 candles. Each box holds the same number of candles. Complete the table and graph the relationship. (Example 1)

Boxes	5	8	10
Candles	60	96	120



Boxes + Candles are countable

Discrete

Dots

Oct 29-1:45 PM

LESSON  
**7.2 Solving Problems  
 with Proportions**



Solve problems with Proportions

Oct 29-1:47 PM

A **proportion** is a statement that two ratios or rates are equivalent.

$\frac{1}{3}$  and  $\frac{2}{6}$  are equivalent ratios.

$\frac{1}{3} = \frac{2}{6}$  is a proportion.

p. 179

**Sheldon and Leonard are partners in a business. Sheldon makes \$2 in profits for every \$5 that Leonard makes. If Leonard makes \$20 profit on the first item they sell, how much profit does Sheldon make?**

Ratio Box

Sheldon	2 × 4	8
Leonard	5 × 4	20

Oct 29-1:49 PM

**YOUR TURN**

pg. 179

1. The members of the PTA are ordering pizza for a meeting. They plan to order 2 cheese pizzas for every 3 pepperoni pizzas they order. How many cheese pizzas will they order if they order 15 pepperoni pizzas?

Ch	2 × 5	10
P	3 × 5	15

Oct 29-1:52 PM

**Using Unit Rates to Solve Proportions**

pg. 180

You can also use equivalent rates to solve proportions. Finding a unit rate may help you write equivalent rates.

The distance Ali runs in 36 minutes is shown on the pedometer. At this rate, how far could he run in 60 minutes?



Find the unit rate of the rate you know.

$$\frac{36 \div 3}{3 \div 3} = \frac{12}{1}$$

The unit rate is 12 minutes per 1 mile.

Use the unit rate to write an equivalent rate that compares 60 miles to an unknown number of minutes.

min	12 × 5	60
miles	1 × 5	5 miles

Oct 29-1:52 PM

**YOUR TURN**

pg.180

2. Ms. Reynold's sprinkler system has 9 stations that water all the parts of her front and back lawn. Each station runs for an equal amount of time. If it takes 48 minutes for the first 4 stations to water, how long does it take to water all parts of her lawn? \_\_\_\_\_

$$\frac{48}{4} = \frac{4}{4} = \frac{12}{1}$$

min.

st.

	12 × 9	108 min
	1 × 9	9

Oct 29-3:14 PM

pg.183

12. A punch recipe says to mix 4 cups pineapple juice, 8 cups orange juice, and 12 cups seltzer in order to make 18 servings of punch.

5

24 c = 18 s P

- a. How many cups of each ingredient do you need to make 108 cups of punch?

18 cups pineapple juice  
36 cups orange juice  
54 cups seltzer

OJ

Sel

Total

	cups	
P	4 × 4.5	18
OJ	8 × 4.5	36
Sel	12 × 4.5	54
Total	24 × 4.5	108

- b. How many servings can be made from 108 cups of punch? 81

$$24 \overline{) 108.0} \\ \underline{-96} \phantom{0} \\ 120 \\ \underline{-120} \\ 0$$

- c. For every cup of seltzer you use, how much orange juice do you use?

$$\frac{OJ}{Sel} = \frac{8}{12} = \frac{4}{4} = \frac{2}{3}$$

6

ser

c

18 × 4.5	81
24 × 4.5	108

$$\begin{array}{r} 18 \\ \times 4.5 \\ \hline 90 \\ 720 \\ \hline 81.0 \end{array}$$

Oct 29-3:19 PM

Homework - ON SEPARATE SHEET OF PAPER



Textbook pages 182-183

3 - 8, 13

7 Problems

Ratio Boxes

Oct 29-3:46 PM