## 7.2 Using Tables to Explore Equivalent Ratios and Rates

Pg. 356 4/23/18

**Learn** to use a table to find equivalent ratios and rates.

## **Reading Math**

Finding equivalent ratios is sometimes referred to as "scaling up" or "scaling down."

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Use a table to find ratios equivalent to 3 to 2.

	Original Ratio	3 • 2	3 • 3	3 • 4
Pints of yellow	3	6	9	12
Pints of blue	2	4	6	8
		2 1 2	2 1 3	2 14

You can increase amounts but keep them in the same ratio by multiplying both the numerator and denominator of the ratio by the same number. The ratios 3 to 2, 6 to 4, 9 to 6, and 12 to 8 are equivalent. You can also decrease amounts in the same ratio by dividing the numerator and denominator by the same number.

Use a table to find the equivalent ratios.

$$\frac{\frac{6}{7}}{7} = \frac{6}{12} \frac{18}{14} \frac{60}{21} = \frac{1060}{70}$$

$$\frac{6}{7} = \frac{12}{14} = \frac{3}{18} = \frac{1060}{70}$$

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## **Helpful Hint**

Multiplying by 2, 3, and 4 will give you three equivalent ratios, but there are many other equivalent ratios that are correct.

3 to 5	3	9	uivalent ratios.			
	5	15	10			
-3 -2						

Use a table to find the equivalent ratios.

48:36 
$$\frac{48}{36} = \frac{4 \cdot 2}{3} = \frac{8}{6}$$

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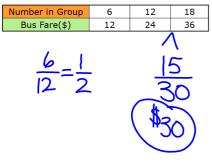
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Use a table to find the equivalent ratios.

$$\frac{3}{8}$$
  $\frac{3}{8} = \frac{30}{80 - 2} = \frac{15}{40}$ 

Use a table to find the equivalent ratios.

Several groups of friends are going to take a shuttle bus to the park. The table shows how much the different groups will pay in all. Predict how much a group of 15 friends will



Several groups of friends are purchasing tickets to an amusement park. The table shows how much the different groups will pay in all. Predict how much a group of 7

riends will pay.			
Number in Group	4	6	8
Tickets(\$)	20	30	40
$\frac{4}{20}$ =	<u> </u> 5 (	\$35	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\

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## **Lesson Quiz: Part I**

Use a table to find three equivalent ratios.  
1. 
$$\frac{1}{3} = \frac{2}{6} = \frac{10}{30}$$

2. 
$$\frac{9}{4} = \frac{.3}{12} = \frac{.4}{16}$$

3. 
$$\frac{12}{60} = \frac{1}{30} = \frac{1}{5}$$

**4.** Fred is saving for a new sound system. The table shows some amounts he could save in different numbers of weeks. Predict the amount of his savings after 10 weeks.

Weeks	4	8	12
Savings	50	100	150

$$\frac{4}{50} = \frac{2}{25} \cdot \frac{10}{125}$$

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