Ratio Tables

Lesson 6-2

What are equivalent ratios?

- **Equivalent ratios** express the same relationship between two quantities.
- The ratios $\frac{1}{3}$, $\frac{2}{6}$ and $\frac{3}{9}$ are equivalent ratios since each simplifies to a ratio of $\frac{1}{3}$

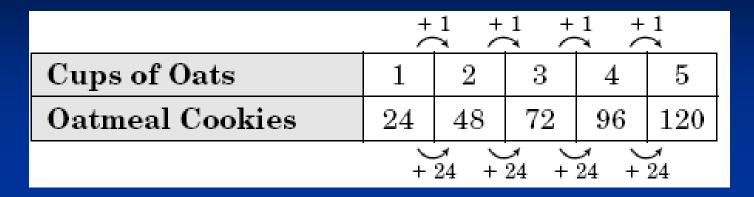
What is a ratio table?

A ratio table organizes data into columns that are filled with pairs of numbers that have the same ratio, or are equivalent

Cups of Oats	1		5
Oatmeal Cookies	24		

Example: You need 1 cup of rolled oats to make 24 oatmeal cookies. Use the ratio table to find how many oatmeal cookies you can make with 5 cups of rolled oats.

Find a pattern and extend it.



So, 120 oatmeal cookies can be made with 5 cups of rolled oats.

What is scaling?

- Multiplying or dividing two related quantities by the same number is called scaling.
- You may sometimes need to *scale back* and then *scale forward* or vice versa to find an equivalent ratio.

Example: A department store has socks on sale for 4 pairs for \$10. Use the ratio table to find the cost of 6 pairs of socks.

Pairs of Socks	4	6
Cost in Dollars	10	

- There is no whole number by which you can multiply 4 to get 6.
- Instead, scale back to 2 and then forward to 6.

	* 3			
Pairs of Socks	2	4	6	
Cost in Dollars	5	10	15	
÷ 2 × 3				

So, the cost of 6 pairs of socks would be \$15.

Exercises

■ 1. EXERCISE Keewan bikes 6 miles in 30 minutes. At this rate, how long would it take him to bike 18 miles?

Distance Biked (mi)	6	18
Time (min)	30	

2. HOBBIES Christine is making fleece blankets. 6 yards of fleece will make 2 blankets. How many blankets can she make with 9 yards of fleece?

Yards of Fleece	6	9
Number of Blankets	2	