Unit 2 Vocab

Determining Ratios

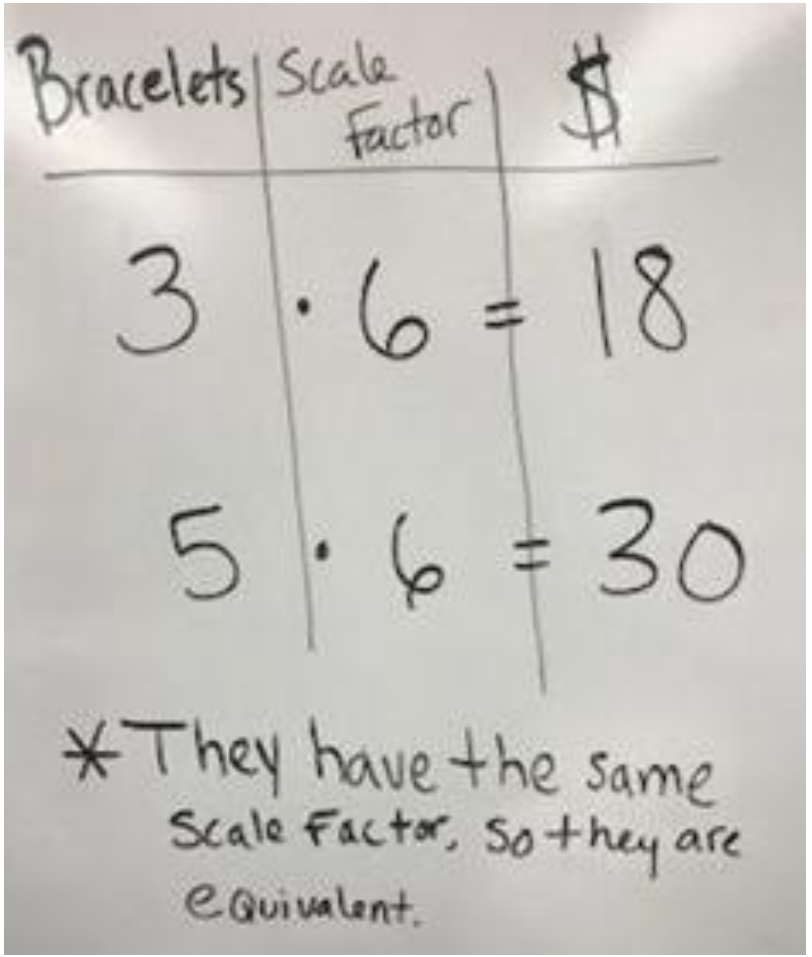
A Ratio is a comparison or a relationship between two items.

The Ratio of Blue Circles to Pink Circles is five blue circles compared to three pink circles.

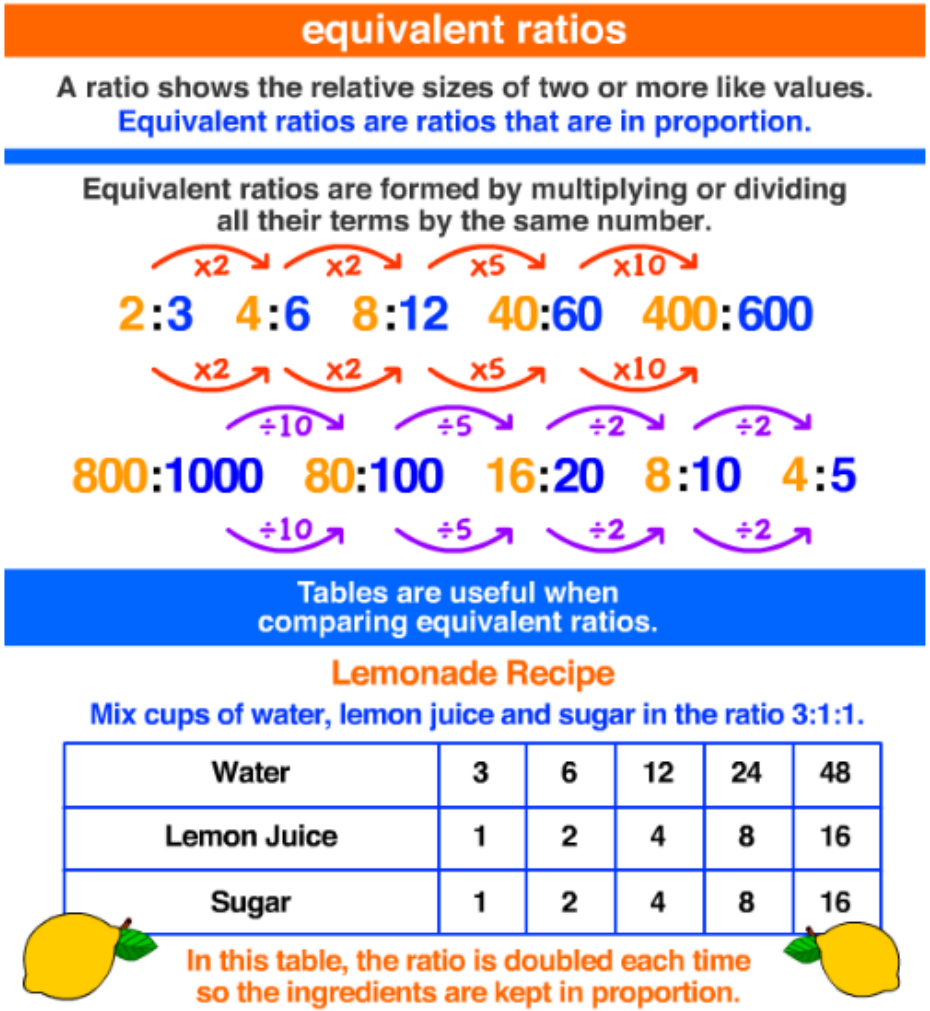
We can write this in any three of the following ways:

Blue to Pink = 5 to 3 or 5 : 3 or 5/3

Scale Factor- The number that a ratio is moved up or down to create equivalent ratios.



Equivalent Ratio- ratios that are in proportion, e.g. 4:5, 8:10 and 16:20.



Total: The sum of all parts of the ratio.

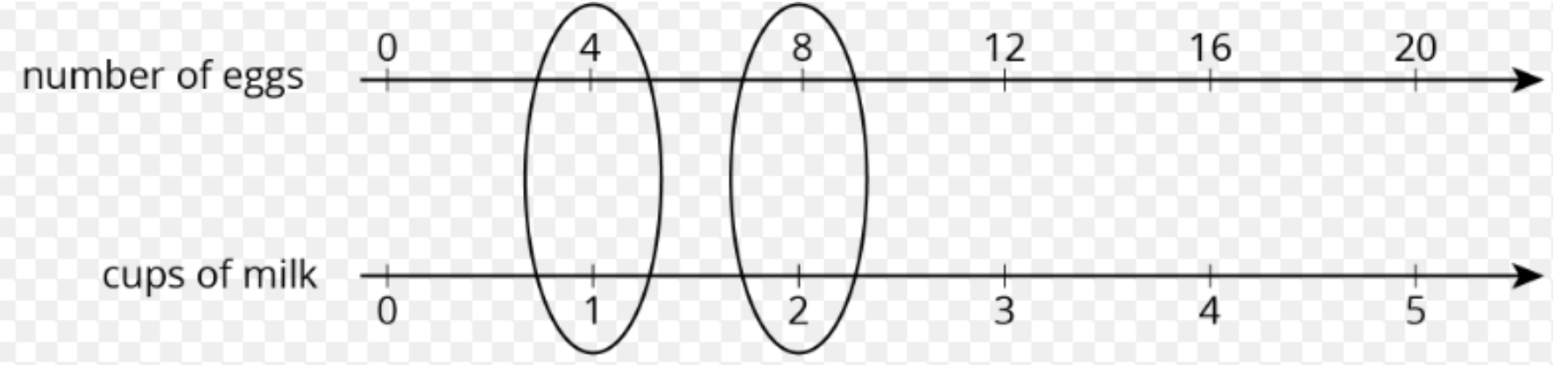
Color M&M	Quantity
Green	10
Red	15
Yellow	5
Blue	5
Total	**20**

Unit: A title that defines what each quantity represents.

20 pies : 44 cakes

14 pies : 26 cakes

Double Number Line Diagram- is a number line with a scale on top and a different scale on the bottom so that you can organize and compare items that change regularly according to a rule or pattern.



Per- Means for each single (1) item. Represented by a forward slash (/). Used when speaking of Unit Rate.

Problem A crowded subway train has 375 passengers distributed evenly among 5 cars. What is the unit rate of passengers per subway car?

$$\frac{\text{passengers}}{\text{subway cars}}$$

Identify the relationship.

$$\frac{375 \text{ passengers}}{5 \text{ subway cars}}$$

Write the rate as a fraction.

$$\frac{375 \text{ passengers} \div 5}{5 \text{ subway cars} \div 5} = \frac{75 \text{ passengers}}{1 \text{ subway car}}$$

Express the fraction with 1 in the denominator to find the number of passengers in one subway car.

Answer The unit rate of the subway car is 75 riders per subway car.

Convert to Unit Rates:

$\frac{6 \text{ miles}}{3 \text{ hours}}$	$\frac{40 \text{ words}}{2 \text{ min.}}$	$\frac{5 \text{ miles}}{2 \text{ hours}}$
$\frac{6 \div 3}{3 \div 3}$	$\frac{40 \div 2}{2 \div 2}$	$\frac{5 \div 2}{2 \div 2}$
$= \frac{2 \text{ mi.}}{1 \text{ hr.}}$	$= \frac{20 \text{ words}}{1 \text{ min.}}$	=2.5 mi./hr.
=2 mi./hr.	=20 words/min.	

Unit Price: is a unit rate that give the cost per 1 unit

$4.89/10 servings = $0.49/1 serving

Cost: $4.89
Servings: 10
Cost/Serving: $0.49

vs

Cost: $3.29
Servings: 30
Cost/Serving: $0.11