

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.

Bracelets	Scale Factor	\$
3	$\cdot 6 =$	18
5	$\cdot 6 =$	30

* They have the same Scale Factor, so they are equivalent.

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

equivalent ratios

A ratio shows the relative sizes of two or more like values.

Equivalent ratios are ratios that are in proportion.

Equivalent ratios are formed by multiplying or dividing
all their terms by the same number.



Tables are useful when
comparing equivalent ratios.

Lemonade Recipe

Mix cups of water, lemon juice and sugar in the ratio 3:1:1.

Water	3	6	12	24	48
Lemon Juice	1	2	4	8	16
Sugar	1	2	4	8	16



In this table, the ratio is doubled each time
so the ingredients are kept in proportion.



Total: The sum of all parts of the ratio.

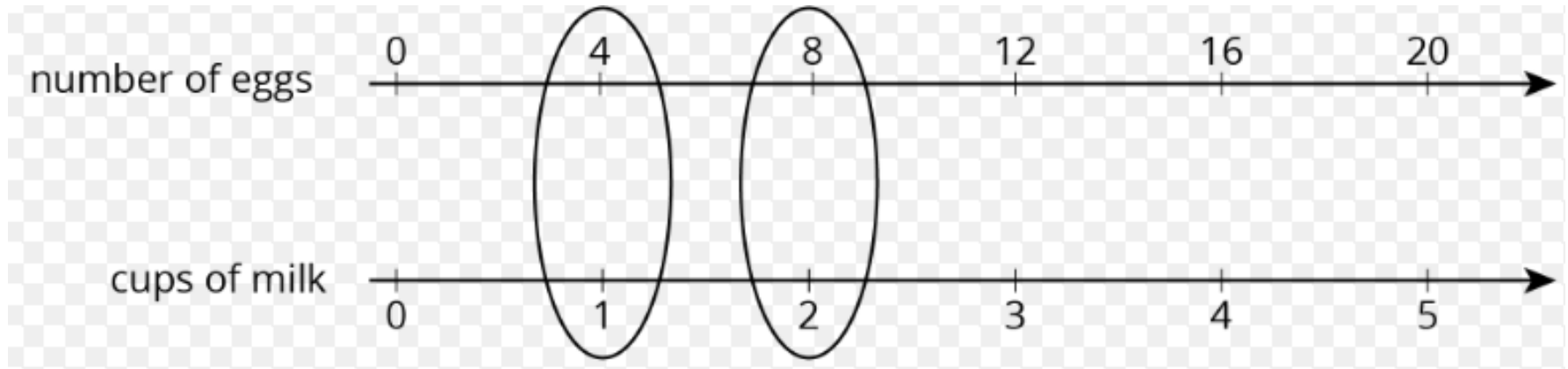
Color M&M	Quantity
Green	10
Red	15
Yellow	5
Blue	5
Total	20

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?

passengers
subway cars

Identify the relationship.

375 passengers
5 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:

6 miles
3 hours

$$\frac{6 \div 3}{3 \div 3} = \frac{2 \text{ mi.}}{1 \text{ hr.}}$$

$$= 2 \text{ mi./hr.}$$

40 words
2 min.

$$\frac{40 \div 2}{2 \div 2} = \frac{20 \text{ words}}{1 \text{ min.}}$$

$$= 20 \text{ words/min.}$$

5 miles
2 hours

$$\frac{5 \div 2}{2 \div 2} = \frac{2.5 \text{ mi.}}{1 \text{ hr.}}$$

$$= 2.5 \text{ mi./hr.}$$

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