

2 out of 3 people prefer popcorn instead of nachos at the movies

$\frac{2}{3} \rightarrow \# \text{ who prefer popcorn}$

$\frac{2}{3} \rightarrow \text{total \#}$

Ratios

part : whole

$2 : 3$
Prefers popcorn \rightarrow total #

CR part : part

$2 : 1$
Prefers popcorn \rightarrow prefers nachos

For fractions the bottom number ALWAYS represents the whole

Fractions = $\frac{\text{part}}{\text{total}}$

bottom # is
always the total

Ratio = part : total

OR

part : part

→ second # is
total

→ no total given.
Have to add
the two #'s
together to
get the total

Ratio \rightarrow Fraction \rightarrow Decimal \rightarrow Percent

ex. 1 teacher for every 15 students

part : part

$$\begin{array}{c} 1 : 15 \\ \text{teachers} \quad \text{students} \end{array} \rightarrow \frac{1}{16} \rightarrow 1 \div 16 = 0.0625 \rightarrow 6.25\%$$

part : total

$$\begin{array}{c} 1 : 16 \\ \text{teachers} \quad \text{people} \end{array} \rightarrow \frac{1}{16} \rightarrow 1 \div 16 = 0.0625 \rightarrow 6.25\%$$

RATIOS CAN BE PART:PART OR PART:WHOLE

Example pg 266

At a class party, there are 16 boys, 15 girls, and 4 adults.

Show each ratio as many different ways as you can.

- a) boys to girls $16:15$ part \div part
- b) boys to girls to adults $16:15:4$ part \div part \div part
- c) adults to total number of people at the party

$$4:35 \quad \text{part} \div \text{whole}$$