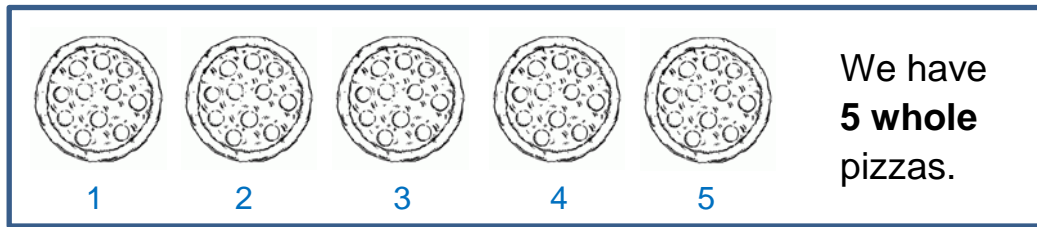


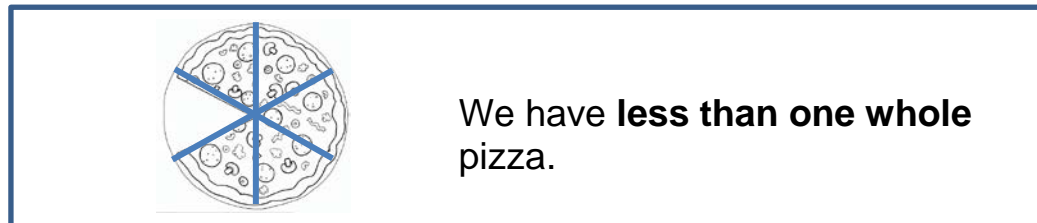
# Introduction to Fractions

## Part A – What is a Fraction?

Count the number of whole pizzas. How many do we have?



Count the number of whole pizzas. How many do we have?



Sometimes we cannot count in whole numbers. In these cases we need to express quantities in parts. Everyday words such as slices, parts, sections, chunks, and pieces are used to express parts of a whole. In math, we use **fractions** to depict these values.

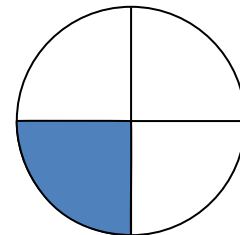
A **fraction** consists of two numbers separated by a bar in between them.

- The **bottom** number, called the **denominator**, is the total number of **equally divided** portions in one whole.
- The **top** number, called **the numerator**, is how many portions you have.
- The bar represents the operation of **division**.

**Numerator** → We have 1 out of the 4 portions.

$$\frac{1}{4}$$

← **Denominator**  
The whole is divided into four equal parts.



We always assume that every whole is divided into **equal** parts. Observe that Figure 1.1 has equally divided slices while Figure 1.2 does not.

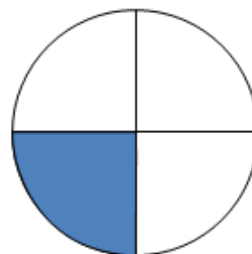


Figure 1.1

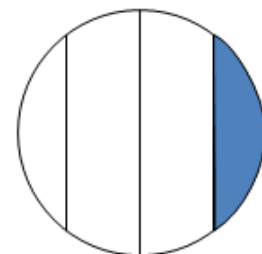
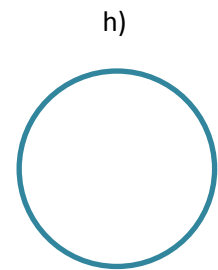
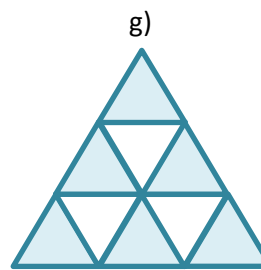
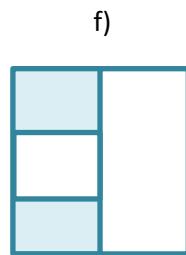
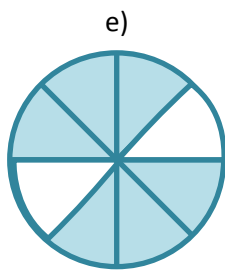
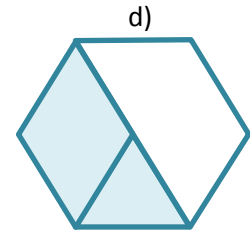
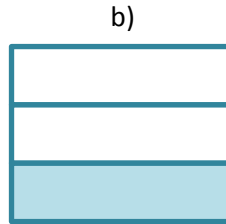
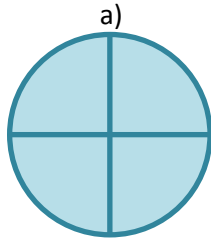


Figure 1.2

# Introduction to Fractions

## Exercises:

1. Express the following diagrams as fractions.



2. Draw a picture to express the following fractions.

a)  $\frac{2}{5}$

b)  $\frac{5}{6}$

c)  $\frac{6}{12}$

d)  $\frac{7}{8}$

e)  $\frac{4}{6}$

f)  $\frac{3}{10}$

g)  $\frac{1}{3}$

h)  $\frac{3}{2}$

3. Express the following statements as fractions.

- a) 45 minutes of an hour
- b) 2 liters filled out of 5 liters
- c) 3 laps of 4 laps
- d) 300 meters of one 1 kilometer
- e) 100 milliliters out of a cup (250 milliliters)

4. Find six equivalent fractions for the following.

a)  $\frac{4}{7} = \frac{\quad}{14} = \frac{\quad}{21} = \frac{\quad}{28} = \frac{\quad}{35} = \frac{\quad}{42}$

b)  $\frac{1}{3} = \frac{2}{\quad} = \frac{4}{\quad} = \frac{6}{\quad} = \frac{8}{\quad} = \frac{10}{\quad}$

5. Find the Greatest Common Factor between the pair of numbers.