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SCHOOL : AECS MANUGURU

SUBJECT : MATHEMATICS

CLASS : 6

TOPIC : FRACTIONS

MODLUES : 1/4

FRACTION


Which number do you use to represent a quarter of a pizza?

(i.e., if a pizza is divided into four equal parts)

- Answer :

There is no number with you.

Hence, in this case you use fractions .



Fractions represent a part of a whole. The whole may be a single or group of objects but the parts have to be equal

Answer for above question is (1 / 4).

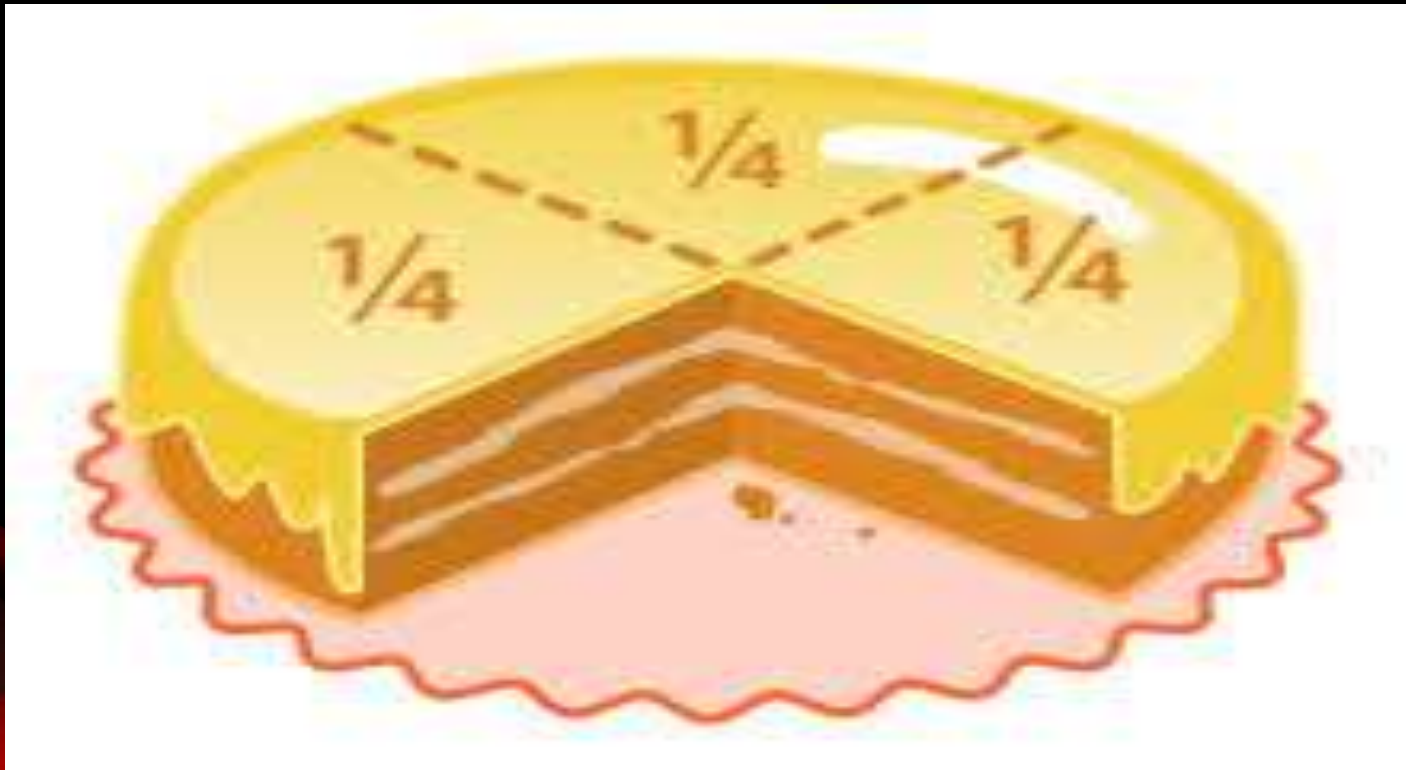
FRACTIONS

➤ A fraction means a part of a group or a region.

Ex Farida divided a pineapple cake into four parts.

So each part is equal to one-fourth = $1/4$

In one-fourth 1 is called as numerator & 4 is called as denominator



EXAMPLES OF FRACTIONS

Fraction

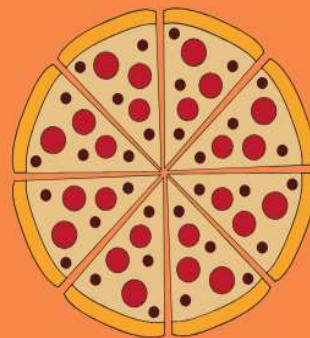


MORE EXAMPLES DAY TO DAY LIFE:

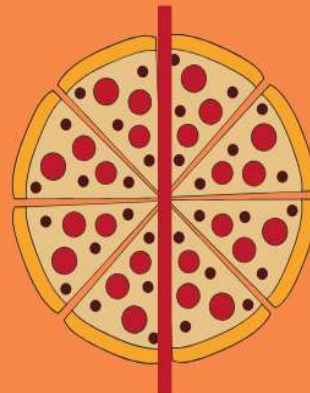


PIZZA TIME!

Use a real pizza for extra visual learning!

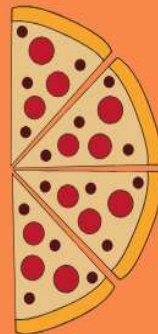


To share the pizza between 2 people, we cut it into 2 pieces.



This is called a half. We put the number of parts on the bottom of the fraction:

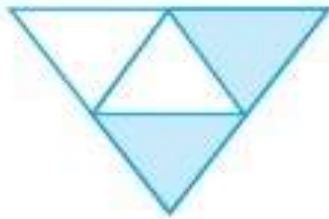
$$\frac{\quad}{2}$$



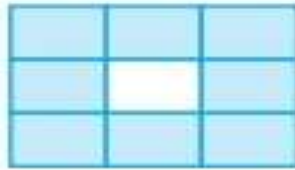
Each person has 1 part. The number on the top of the fraction shows how many parts we have.

$$\frac{1}{2}$$

Write the fraction for the shaded portion:



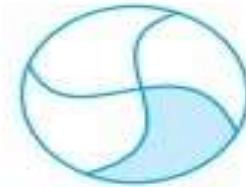
(i)



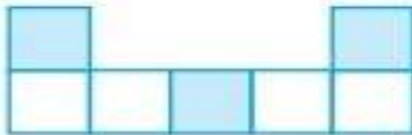
(ii)



(iii)



(iv)



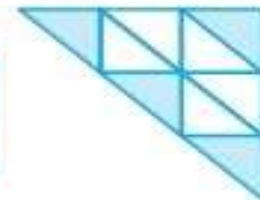
(v)



(vi)



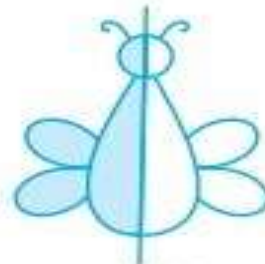
(vii)



(viii)



(ix)

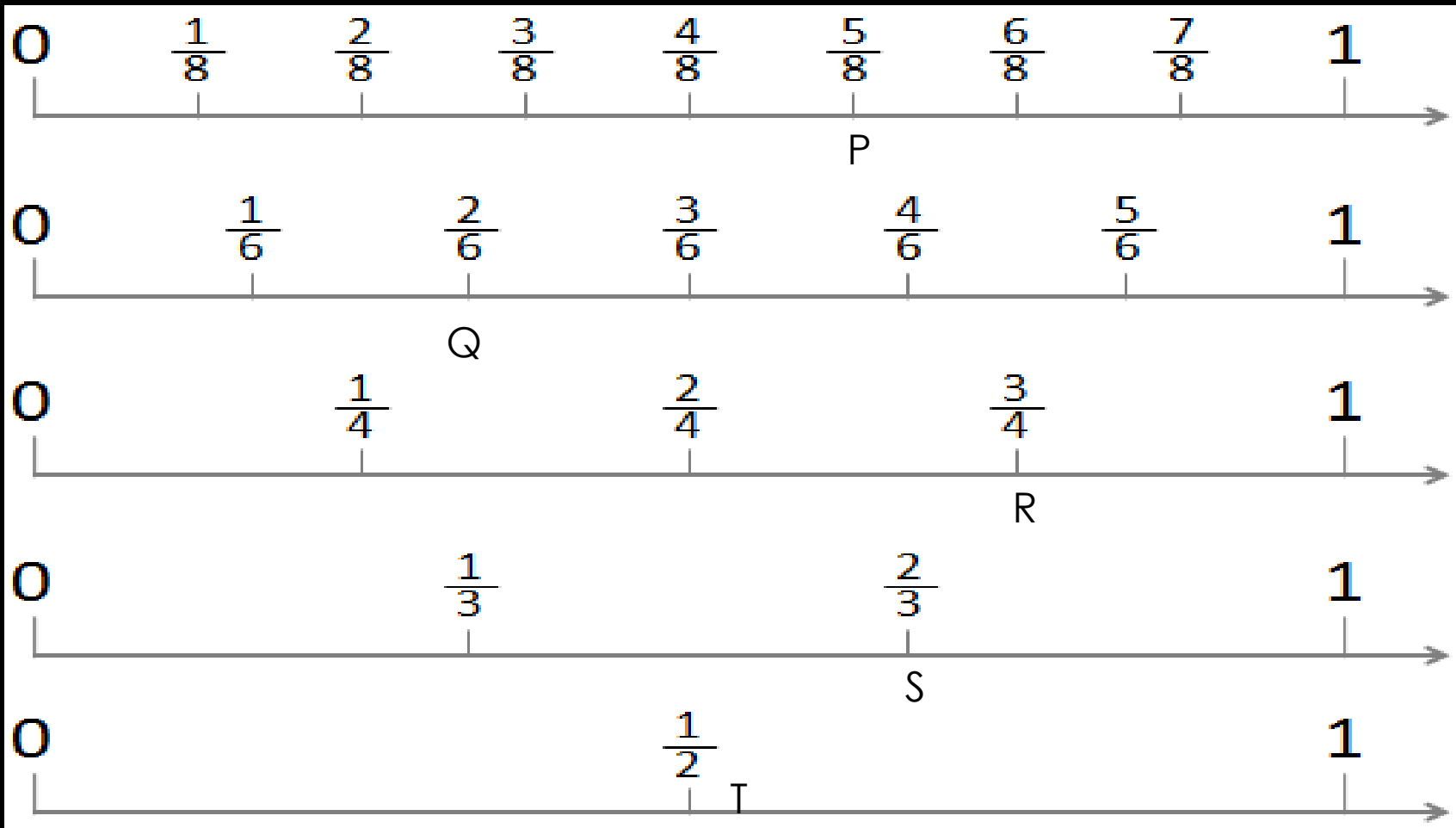


(x)

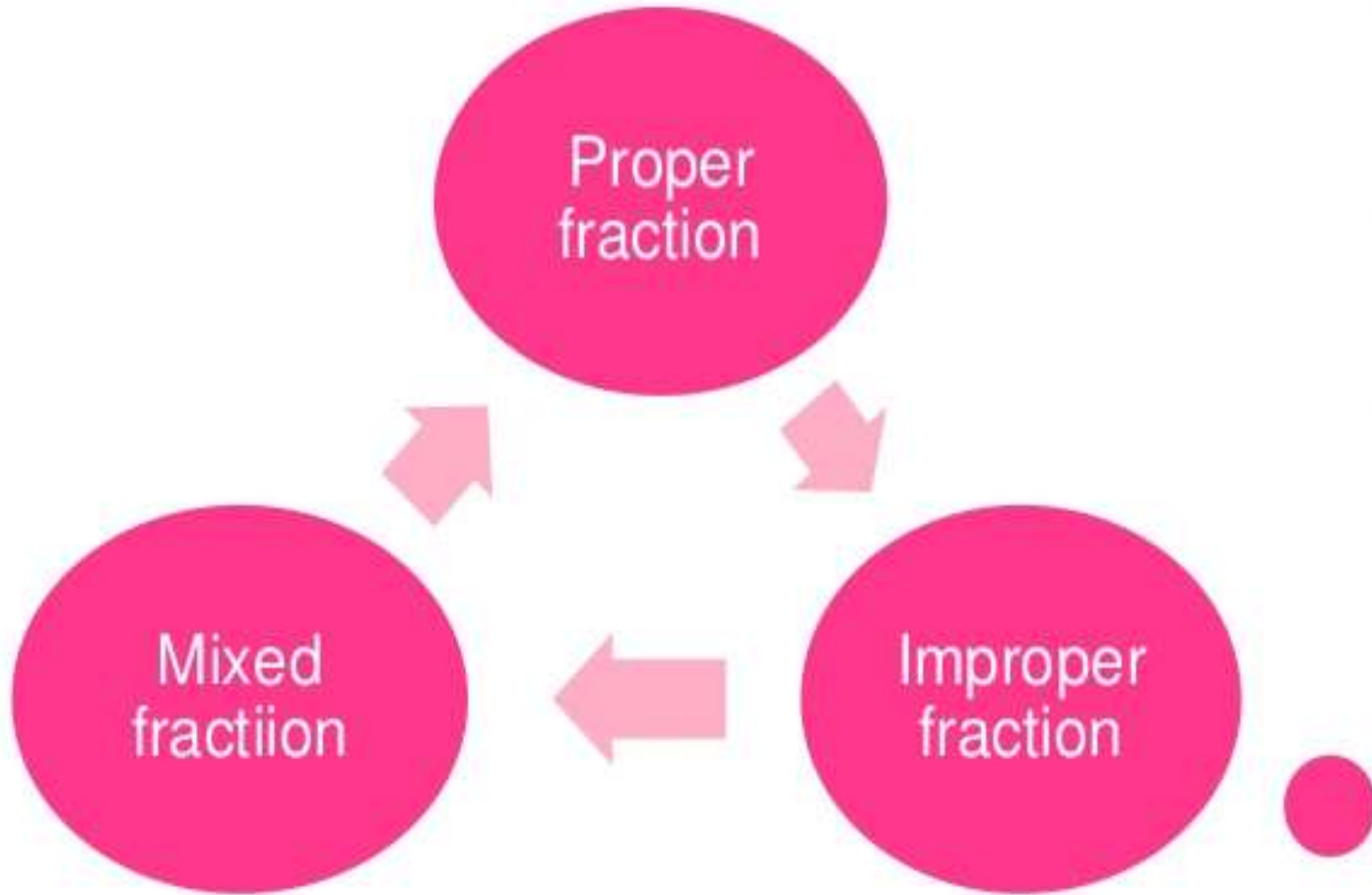
FRACTIONS ON A NUMBER LINE.

- Any fraction can be associated with it on a number line .
- To represent any fraction on a number line we mark points by taking equal gaps between them .
- We start from 0 and we continue to get unit fraction .
- A Fraction is denoted by any capital alphabet

REPRESENTATION OF FRACTIONS: P, Q, R, S & T



TYPES OF FRACTION



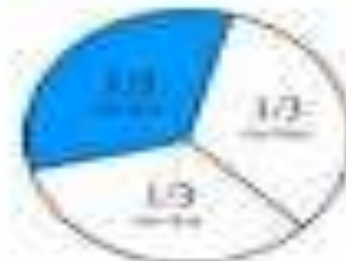
PROPER FRACTIONS

Proper Fraction

a fraction less than one,
with the numerator
less than the denominator



$$\frac{1}{3}$$



IMPROPER FRACTION

What is an improper fraction?

An improper fraction is a fraction where the numerator is larger than the denominator.

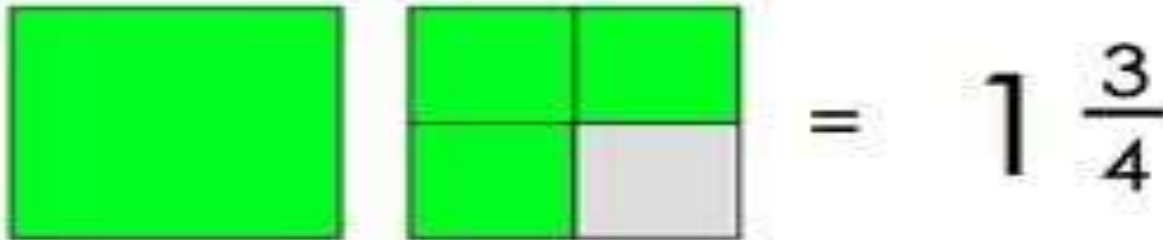
Example:

$$\frac{78}{3}$$

MIXED FRACTION

Mixed Numbers

- A mixed number has a part that is a whole and a part that is a fraction.



Types of fractions



- **Proper fractions**

- the top number (numerator) is SMALLER than the bottom number (denominator).

$$\frac{1}{2}$$

- **Improper fractions**

- the top number is LARGER than the bottom number.

$$\frac{3}{2}$$

- **Mixed numbers**

- a whole number and a fraction.

$$2\frac{3}{2}$$

EXAMPLES OF TYPES OF FRACTIONS:

$$\frac{3}{5}$$

**Proper
Fractions**

$$\frac{8}{1}$$

**Improper
Fractions**

$$2\frac{7}{8}$$

**Mixed
Numbers**

PRACTICE PROBLEMS:

1) What fraction of a day is 8 hours?

2) Arya, Abhimanyu and Vivek shared lunch. Arya has brought two sandwiches, one made of vegetable and one of jam. The other two boys forgot to bring their lunch. Arya agreed to share his sandwiches so that each person will have an equal share of each sandwich.

(a) How can Arya divide his sandwiches so that each person has an equal share?

(b) What part of a sandwich will each boy receive?

CONVERSION OF MIXED FRACTIONS INTO IMPROPER FRACTIONS

$$\bullet \text{ a) } 8\frac{1}{4} = \frac{(4 \times 8) + 1}{4} = \frac{32 + 1}{4} = \frac{33}{4}$$

$$\bullet \text{ b) } 3\frac{1}{2} = \frac{(2 \times 3) + 1}{2} = \frac{6 + 1}{2} = \frac{7}{2}$$

Similarly convert the following fractions:

$$\text{c) } 3\frac{2}{5}$$

$$\text{d) } 2\frac{1}{3}$$

IMPROPER FRACTIONS INTO MIXED FRACTIONS

Improper Fraction to Mixed Number

$$\frac{7}{3}$$

=

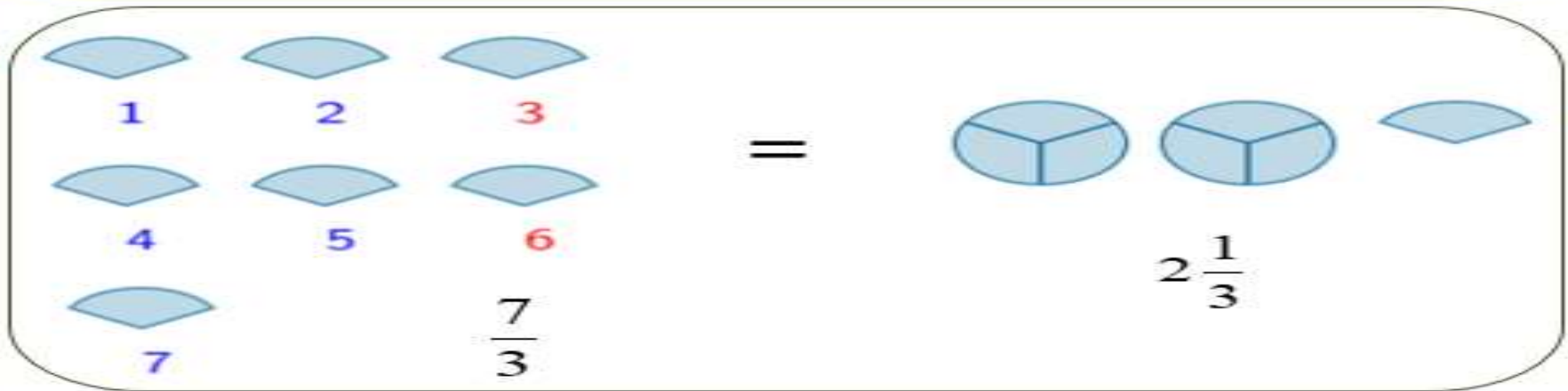
$$\begin{array}{r} 2 \\ 3 \overline{)7} \\ \underline{6} \\ 1 \end{array}$$

=

$$2\frac{1}{3}$$

Improper Fraction

Mixed Number



EXAMPLE IMPROPER TO MIXED FRACTION

$$\frac{9}{4} = 2\frac{1}{4}$$



THANK YOU