

Butterfly

# MATHS 2



**EAST**

MONTESSORI & PRIMARY  
CURRICULUM

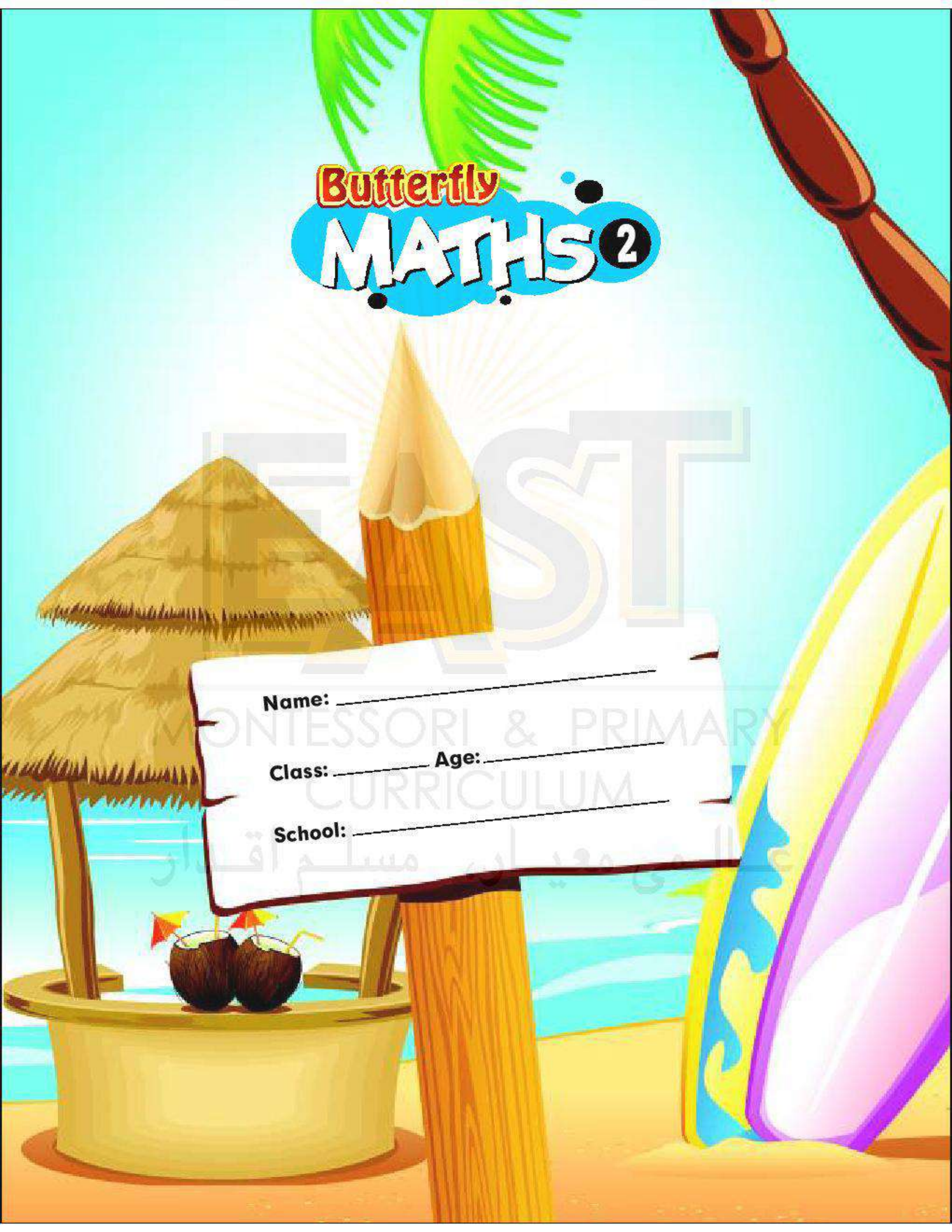
عالمي معيار، مسلم اقدار

# Butterfly MATHS 2

Name: \_\_\_\_\_

Class: \_\_\_\_\_ Age: \_\_\_\_\_

School: \_\_\_\_\_



# PREFACE

Mastering the intrigues of universal phenomena requires precision and accuracy, something that one achieves by learning the language of the scientific knowledge: Mathematics. This book teaches children Mathematics the way it should be learned - as a yard-stick required to know how the universe is held in a right balance. From numbers to computations, from geometry to measurements, Butterfly and Friends Mathematics empowers students to successfully meet the international standards of mathematical competency.

In the most sublime manner, the book takes children through real-life examples, highlighting the application of mathematical skills and concepts along the way.

Knowing is the first step towards a complete command of a subject, followed by understanding, practice and exploration. These four components of scholarship mingle together in carefully designed projects, serving as a crucible that thoroughly unifies all the previously acquired skills.

1 On the lighter side, the book uses specifically developed, age appropriate characters to make learning a joyous experience.

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# Fractions

Ahmed brought a cake for 4 of his friends.

He placed the cake in the middle and said, "This cake is a whole." Then he cut it in 2 halves and further cut it in 4 quarters.

"Now I will distribute the cake equally with the help of fractions," said Ahmed. He put the 1st piece of cake in Kitten's plate and said,

This means 1 piece of cake is taken out from 4 pieces

and  $\frac{1}{4}$  of the cake is left.



Then he put 1 piece in Zebra's plate and said,

"This means  $\frac{2}{4}$  of the cake is left."



Again he put a piece of cake in Butterfly's plate and said, "This means

$\frac{1}{4}$  of the cake is left."

4

He put the last piece of cake in Owl's plate and said, "This means last piece of cake is

taken out, now  $\frac{0}{4}$  of the cake is left."



Everyone clapped for Ahmed and had their share of the cake.



Then he explained, "A fraction is written by 2 numbers having a line in between them.



The number at the top is the **numerator**. It shows how many parts are taken.

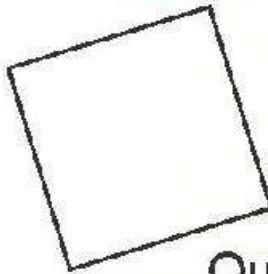


The number at the bottom is the **denominator**. It shows how many equal parts a shape is cut into.





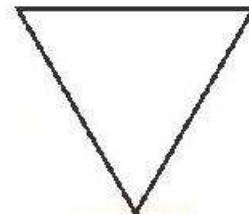
Divide the following shapes into halves and quarters as stated.



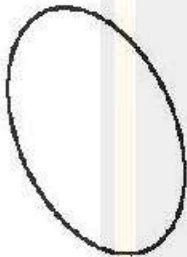
Quarters



Halves



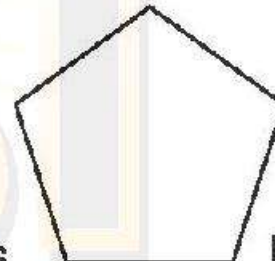
Halves



Halves

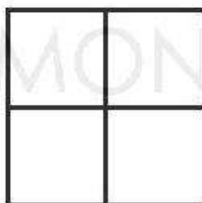


Quarters

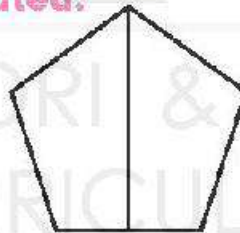


Halves

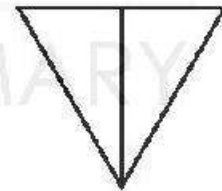
Colour the spaces as stated.



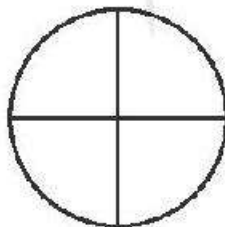
$1/4$



$1/2$



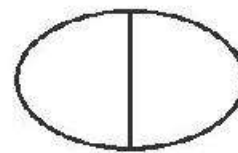
$1/2$



$1/4$



$1/2$



$1/2$

# Numerator & Denominator

In the following fractions, circle the:

**Numerators**

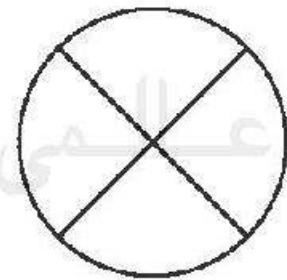
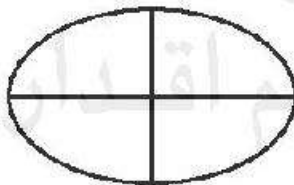
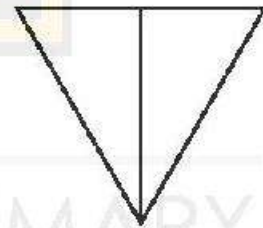
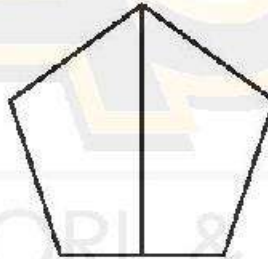
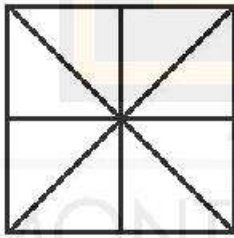
$$\frac{8}{3} \quad \frac{5}{2} \quad \frac{2}{4} \quad \frac{7}{5}$$

**Denominators**

$$\frac{2}{4} \quad \frac{9}{6} \quad \frac{1}{2} \quad \frac{5}{5}$$



Count how many parts each shape is divided into then write them as the Denominators in your notebook.

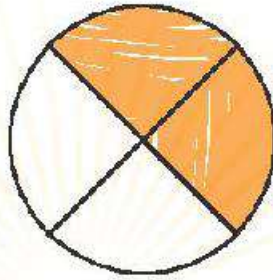


Colour different parts of each shape then write the Numerators to complete the fractions.

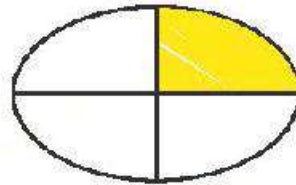
Write complete fractions for coloured part(s) in the following shapes.



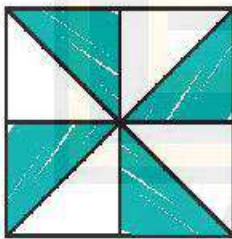
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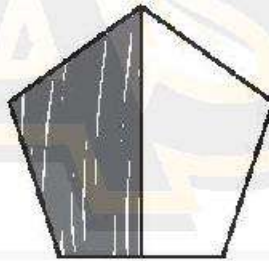
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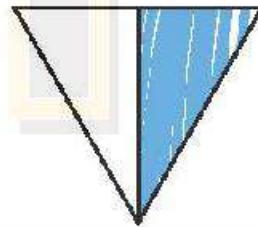
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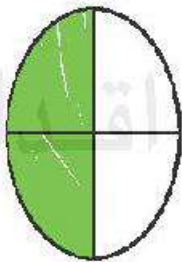
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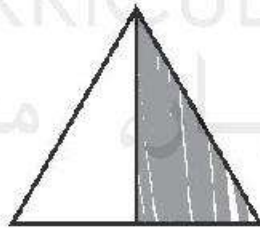
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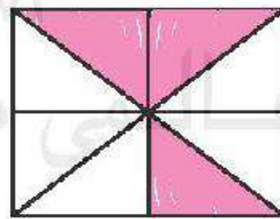
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Rabi was very happy as it was her birthday. She quickly got ready to meet her 4 best friends. Her friends arrived with Birthday gifts in the evening.



But Aisha didn't come. Rabi's Mama had already cut the cake into 4 pieces. They sat down to eat.



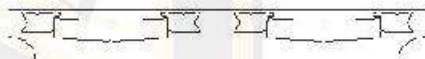
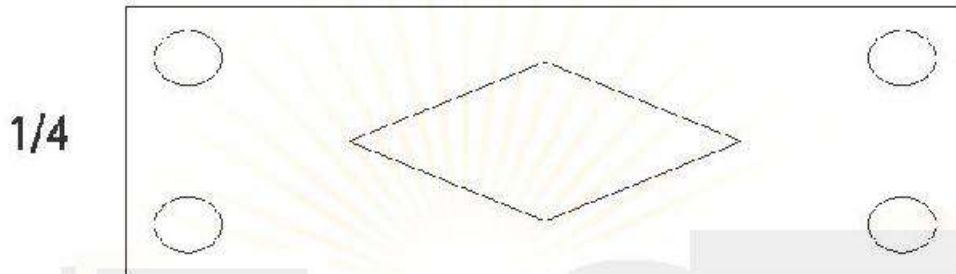
1. What fraction of the cake did each child get?
2. What fraction of the cake did 3 children get?
3. If Aisha didn't come, what fraction of the cake was left?

**FRACTION PARTY.**

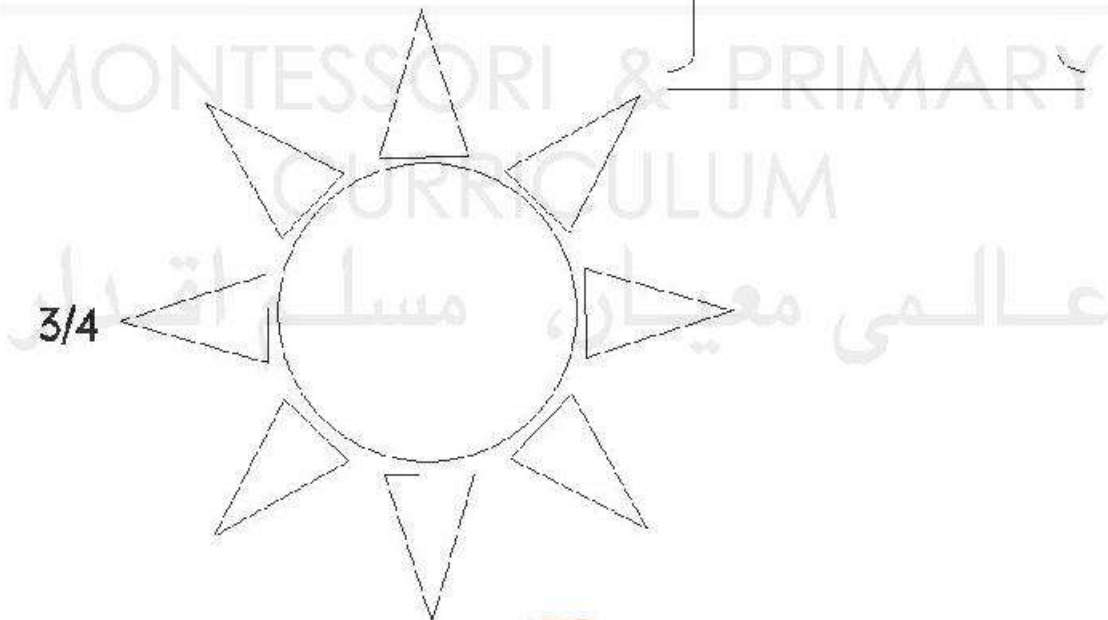
Bring food items from home that can be equally cut into parts. E.g. fruits, sandwiches, pizza or plain cakes. Cut them into equal fractions and share them with your friends. Note down what fraction each friend gets. Enjoy and have fun!

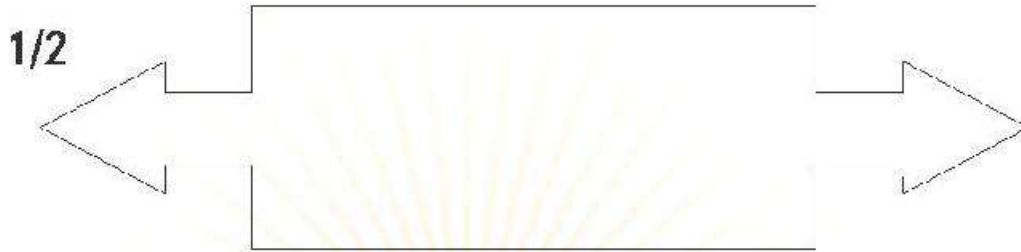


Divide each picture into equal parts according to the given fractions and color each fraction.

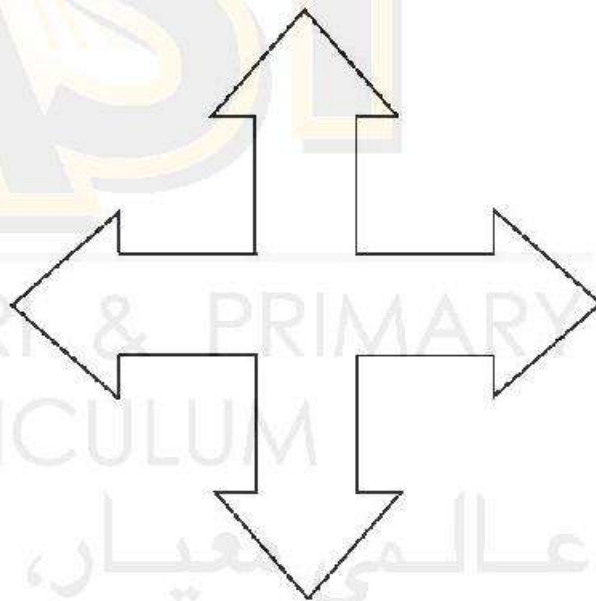
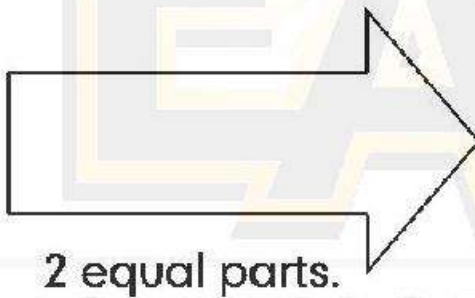


$1/2$

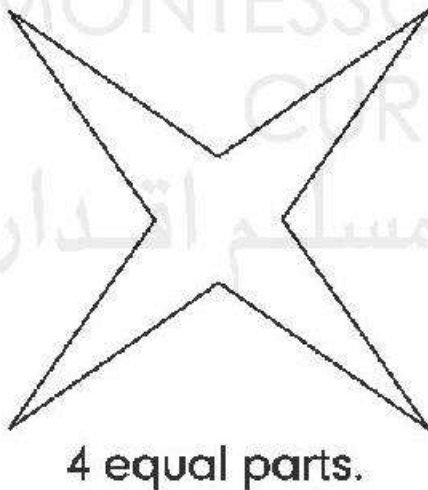




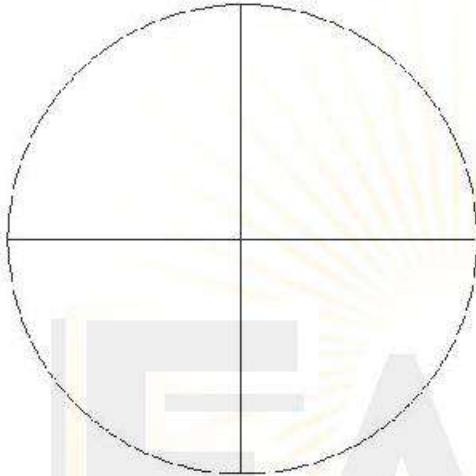
**Divide each shape according to the given fractions.**



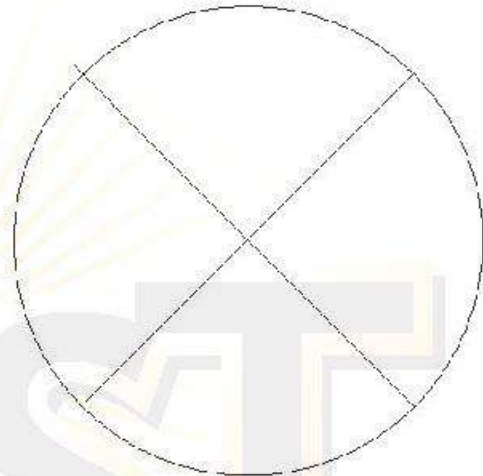
4 equal parts.



Shade the parts according to the given fractions.



$\frac{3}{4}$



$\frac{1}{4}$



$\frac{1}{2}$



$\frac{2}{2}$

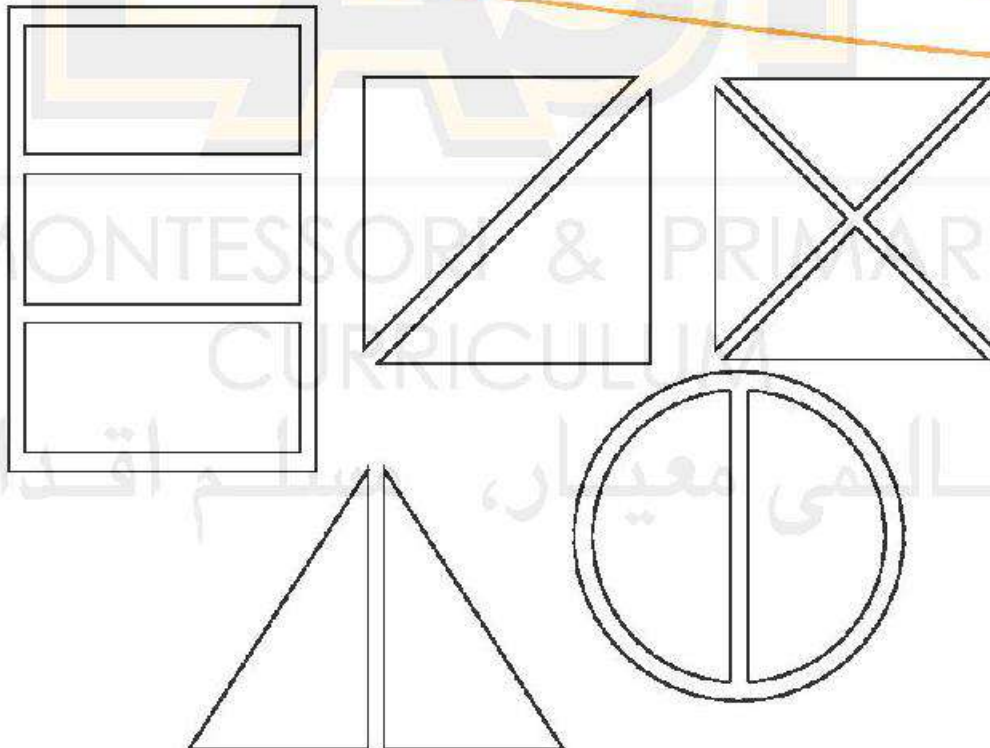


## Fraction Stencil:

### Note for the teacher:

Make some shapes on a hard chart paper with equal fractions as given in the picture. Laminate and then cut out the fractions to make a fraction stencil.

Make 5-6 stencils with different shapes cut into different fractions. Give one stencil to each group of 4-5 children. They will colour through the stencil to make different fractions in their copies.



# Butterfly

Capture the beautiful patterns of flowers' petals, cross section of vegetables and the arrangement of leaves, through Mathematics. In fact, everything in this Universe shows a set pattern. As said by Didochus Proclus, "Wherever there is number, there is beauty."

Most important is to recognize the numbers, the way they are used with the concept behind it. "In the new (math) approach, the important thing is to understand what you're doing, rather than to get the right answer."  
- Tom Lehrer.

Primer Math Series 2 is a new enclosure of the age appropriate concepts for grade level 2. This book shows children, the significant role of Math in our life. It develops understanding of the mathematical problems with hands on activities. The concept of numbers and shapes, the art of doing mental math, measuring and weighing, telling time accurately and spending money, are all integrated to the everyday life.

Concepts are taught in such a captivating and stimulating manner, that children will be absorbed and engrossed in the interesting activities till the end. The exercises are simple yet effective to tap the young minds and provoke them.

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