

INTRODUCTION

Welcome to **Understanding Fractions Book 2**. This book has been designed for Year 2 students, although it may also be helpful in reinforcing basic fractional concepts for children who are experiencing some difficulties or providing more challenging activities and understandings for Year 1 students.

The activities in this book allow students to explore and play with fractional relationships and to come to their own understandings. Students are encouraged to analyse shapes, relationships and numbers. They are also encouraged to develop their skills in communicating, reasoning and problem solving.

Book 2 depends primarily upon visual input and the manipulation of aids and materials. Students are required to create, identify, compare and order common fractions as part of a whole and part of a set. Teachers are encouraged to allow students to utilise any tools or materials that may assist in developing their understanding of fractional concepts.

Your organisation of students may vary as you continue to use this resource. The tasks have been designed to be completed in small groups or pairs as the student exchange of ideas increases the power of learning as it uncovers a variety of problem solving strategies. You may, however, prefer that some tasks be completed individually. When this is the case, bring the students back together on completion of the task and share understandings and experiences. This will help you identify students who require further assistance and will also reinforce the skills that have been taught. Other students will be ready to expand on the concepts they have understood.

Each activity in **Understanding Fractions Book 2**, focusses on at least one of the curriculum strands of **Space, Number, Measurement** and **Reasoning** strategies. The lessons have been designed to be exploratory and sequentially connected.

Assessment is multifaceted and this resource encourages a range of strategies for assessing students. Each lesson is part of this process. You can gather valuable information by listening to student's explanations, observing their thinking and examining their writing and reflections. These assessment tools are some methods of exploring student progress and modifying instruction to suit the needs of your students.

HAWKER BROWNLOW
E D U C A T I O N

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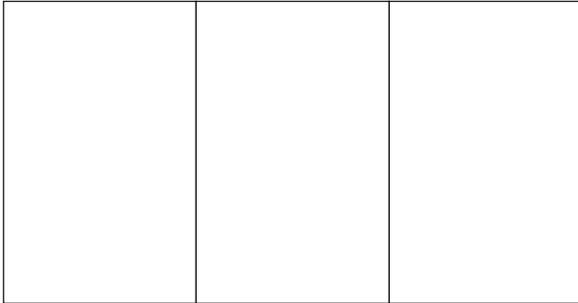
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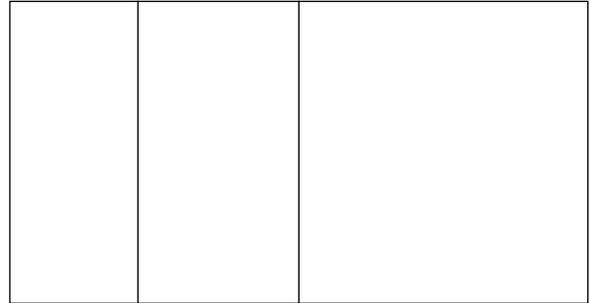
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LESSON
1

FOCUS: Explore equal parts
MATERIALS: Crayons



A



B

1. Look at rectangles *A* and *B*. Each rectangle has how many parts?

Rectangle *A* _____

Rectangle *B* _____

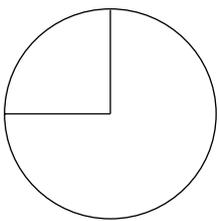
2. Are all the parts of rectangle *A* the same size? _____

Rectangle *A* has 3 **equal parts**.

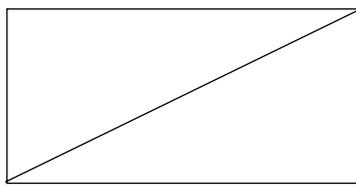
3. Are all the parts of rectangle *B* the same size? _____

Rectangle *B* does not have equal parts.

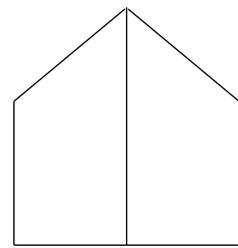
4. Circle the letter of each figure that has equal parts.



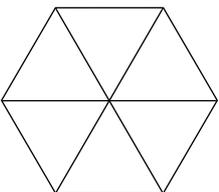
A



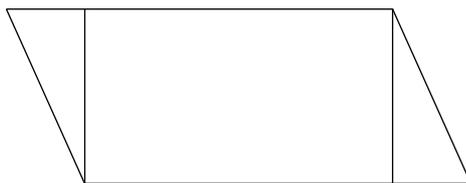
C



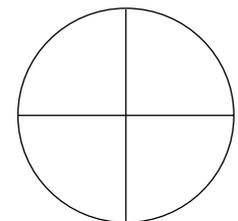
E



B



D



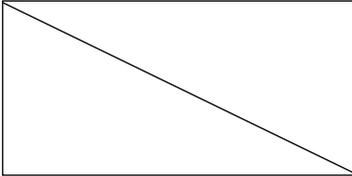
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LESSON
2

FOCUS: Identify one half of a figure

MATERIALS: Crayons, ruler

1. Look at these figures.



A



B



C

- a. Does each figure have equal parts? _____
- b. How many equal parts are there in each figure? _____

If a figure has two equal parts, each part is **one half** of the figure.

2. Colour one half of figure A above. How many parts did you colour? _____
3. How many equal parts are in the figure? _____

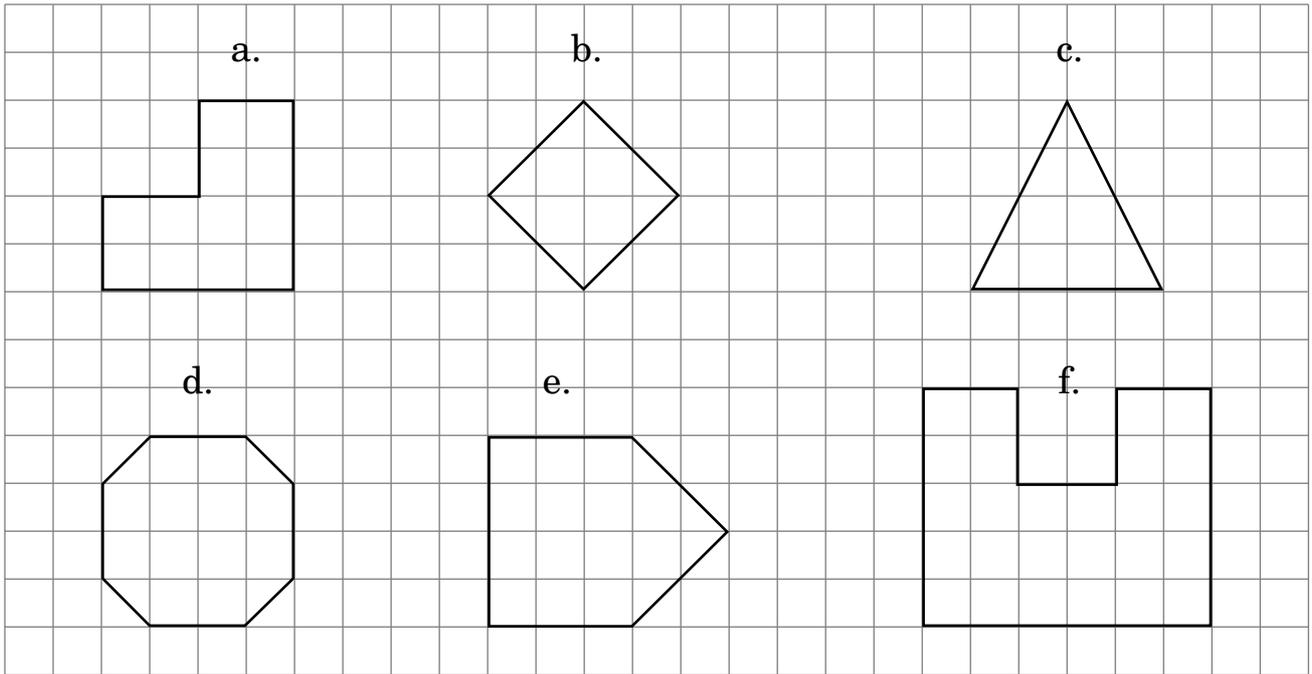
You coloured 1 out of 2 equal parts. This can be written as a **fraction**.

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

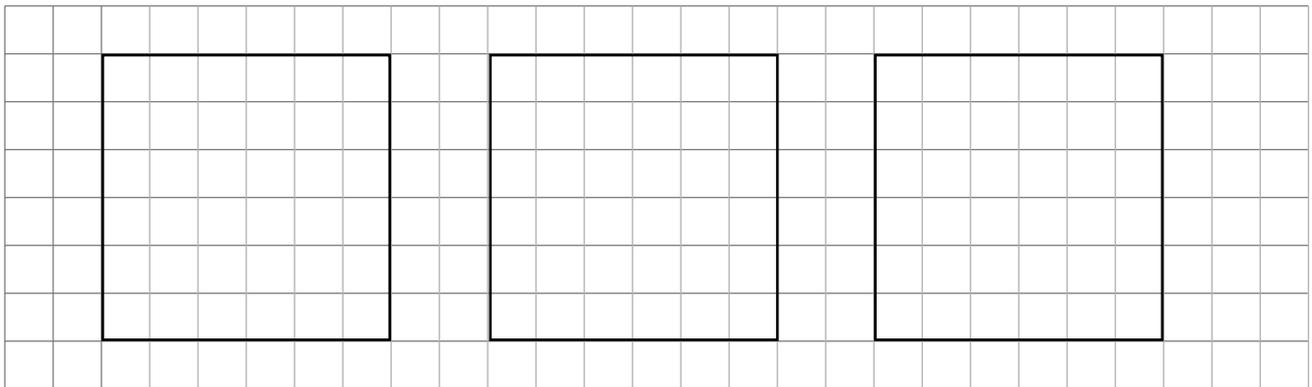
(number of parts coloured)
(number of equal parts)

4. Now colour one half of figure B and one half of figure C.
5. How are all three rectangles the same? How are they different?

6. Draw lines to make two equal parts. Colour $\frac{1}{2}$ of each figure.



7. Colour $\frac{1}{2}$ of each square. Show $\frac{1}{2}$ of each square in a different way.



8. How do you know that you coloured one half of each square in problem 7?
