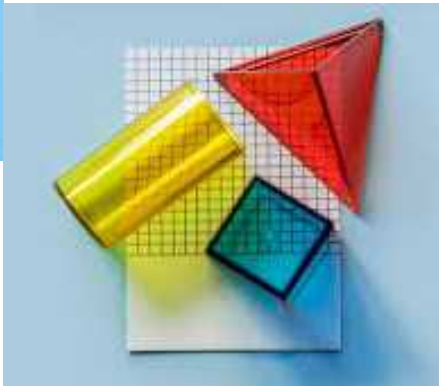




Project code:  
2019-1-EL01-KA201-062914

Erasmus+ Call: 2019 - KA2 -



3D printing technology aims students understanding maths and recycling procedure

*O2\_1<sup>st</sup> Curricula of Maths: Fractions*

**Patterns of Fractions**

# Outline

- Patterns of fractions
- To Remember ....
- Activities
- Videos

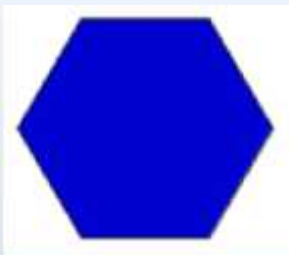


# FRACTIONS, WHOLES, PATTERNS



**Identifying Fractions Using Pattern Blocks**  
What fraction or fractions could be used to represent the given pattern blocks?

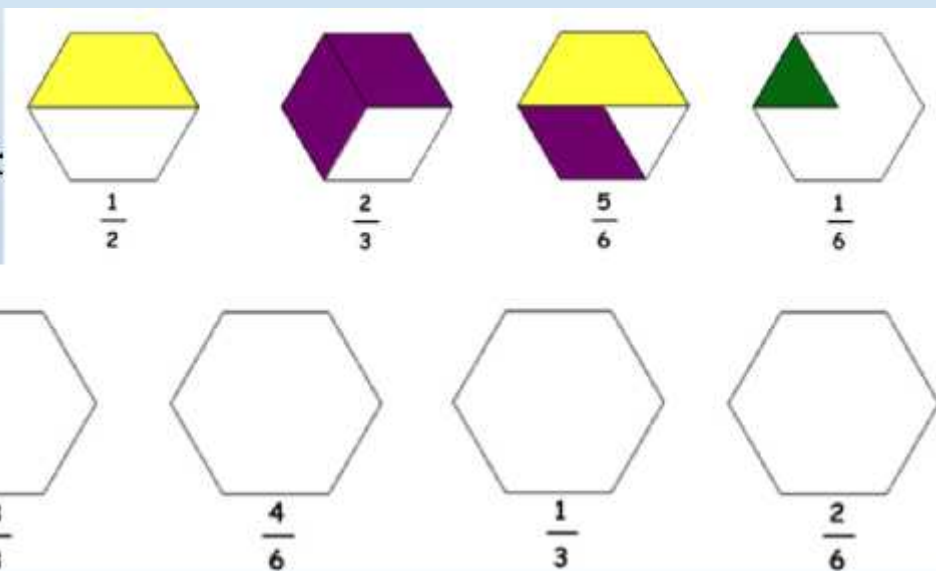
A screenshot of a software interface for identifying fractions using pattern blocks. The interface shows a grid with three pattern blocks: a green trapezoid, a red trapezoid, and a yellow hexagon. A yellow highlight is under the green trapezoid. A sidebar on the left contains various pattern blocks. The yellow hexagon is labeled with the number '1'.



1

whole (=1) and pattern blocks show the fractions

Color pattern blocks t



Source Picture: Internet

### Students Print

- ✓ 1 hexagon
- ✓ 2 equal parts of the hexagon
- ✓ 6 equal parts of the hexagon



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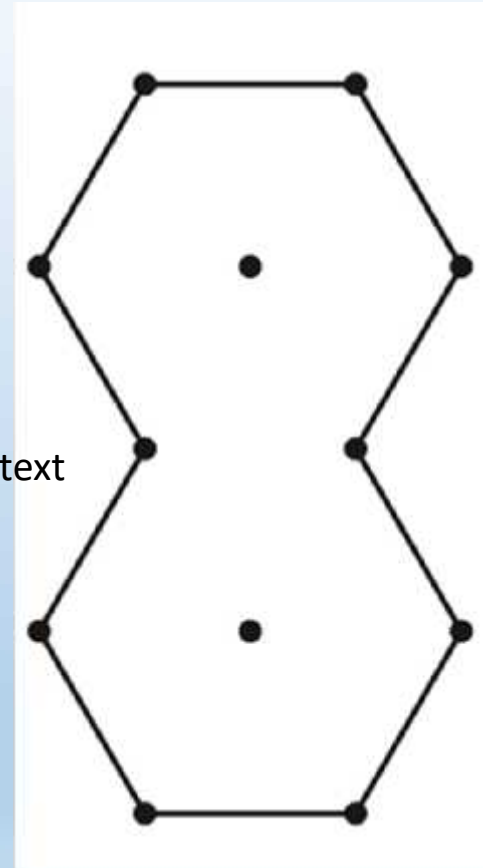
This project is funded by the European Union



## ACTIVITY 2

Two hexagons together are one whole.

- Draw line segments to divide each into trapezoids, rhombuses and triangles.
- Write a number model to show how the parts add up the whole.



Source Picture: Internet



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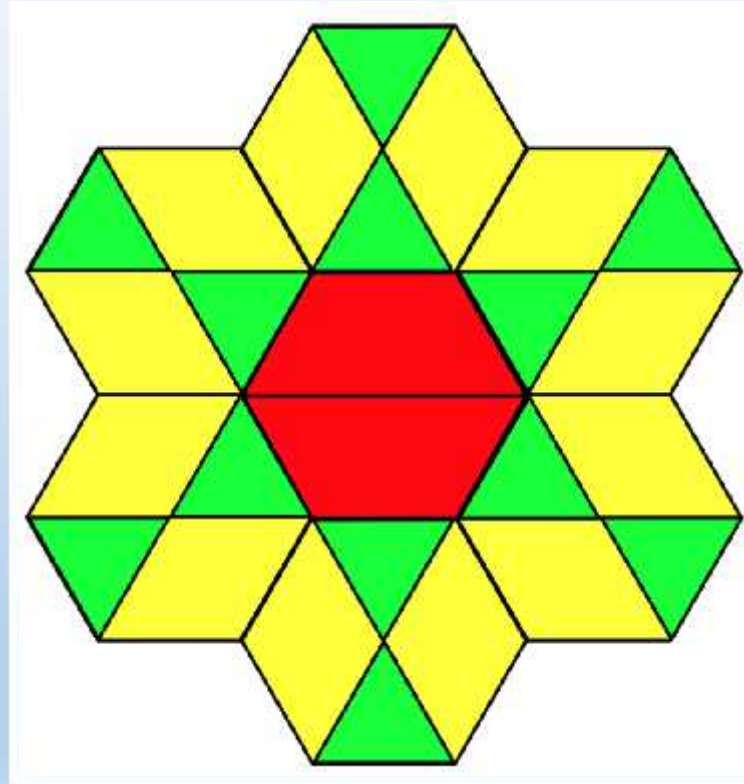
*This project is funded by the European Union.*





## ACTIVITY 3

- What fraction of the design is red?
- What fraction is green?
- Justify your answer.



Source Picture: Internet



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*This project is funded by the European Union.*

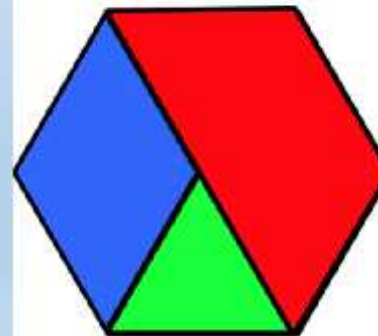
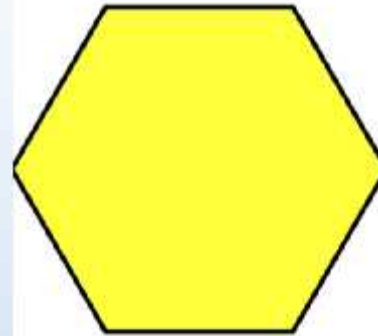




## ACTIVITY 4

Spyros used three different pattern blocks to cover the yellow block.

If the yellow block is 1, then what addition sentence can you use to express John's design?



Source Picture: Internet



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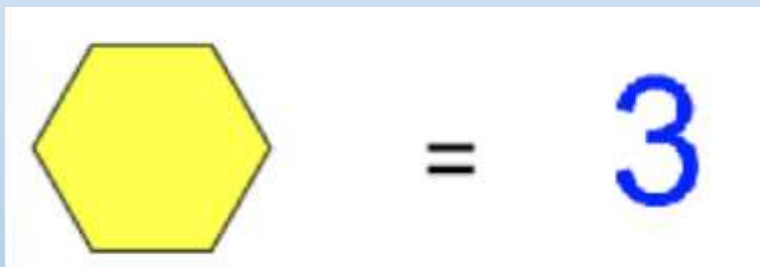
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## ACTIVITY 5

If hexagon is whole and equals “3”,  
what is the value of the following patterns?



Source Picture: Internet




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# Videos



Fractions show equal parts.	Shapes can be split evenly in many ways.	Sometimes the new shapes look very different.	The shares must be the same size. This picture DOES NOT show 1/2.	Each part is the same size and has the same value.
Wholes can be split into more than two equal parts.	We can split this square up in more than one way.	This does not show 1/3 because the three parts are not equal.	Sometimes it is hard to tell when the parts are not equally sized. Look carefully!	Squares have four sides and split into four parts easily.
All parts together make one whole.	Remember that the shape of the part can be very different from the whole.	Sometimes fraction images can be complicated.	Can you guess what fraction of the whole the red piece is?	Count carefully! The original shape does not decide the number of parts in the whole.

Credit your own at Shyrest That

- Patterns of Fractions

<https://www.youtube.com/watch?v=dkBSmdBI-Os>



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