

We are transitioning to the new UMathXI

The “U” in UMathX and UMathXI ... is ... “UNDERSTANDING”



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webinar/workshop

following UMathX Learning Resources are available as we transition to new UMathXI:

- [Support Sheets](#) (with Solutions)
- [Frameworks](#) for Learning (some with answers)
- [Interactive Videos](#) at www.umathx.com in 6,7
- [Previous versions of UMathX](#) K to 10 (available to some)
 1. Click to download: [Understanding Numeration](#) ... gr K to 3
Serial Number: **3-B18652928-465**
 2. Click to download: [Understanding Math](#) ... gr 4 to 10
Serial Number: **5-B17611264-681**

Notify us at info@umathx.com if you would like a webinar.

Setting up .. “The Learning Environment

1. **UMathX** What is it? Play video at .. www.umathX.com

2. **UMathXI** Access: URL... Username... Password...

As of Feb 27, access is not available we are in final testing.

FOR AN INTRODUCTION to this lesson, we suggest that you access the

- **SUPPORT SHEETS** .. Understanding Fractions – Sec 1, 3
- **Understanding Fractions** Section 1, 3 in UMathX 2008
(access for some is available above)

Framework for Learning:

Fraction Introduction

Pattern Blocks – 1

Leader's Name:

(check additional Frameworks)

Co-Leader's Name:

Getting Started: Do this when UMathXI is released.

In **UMathXI** follow the path in the **Content Menu**:

Fractions > Meaning of Fractions > Introduction – Think, Write, Say

Select & work through the Lessons: **Circles> Squares> Balls> Examples**

Now return to **UMathXI** and follow the path in the **Content Menu**:

Fractions > The Meaning of Fractions > Pattern Blocks



Do this on your desk with pattern blocks.

... make the following shapes with your pattern blocks.

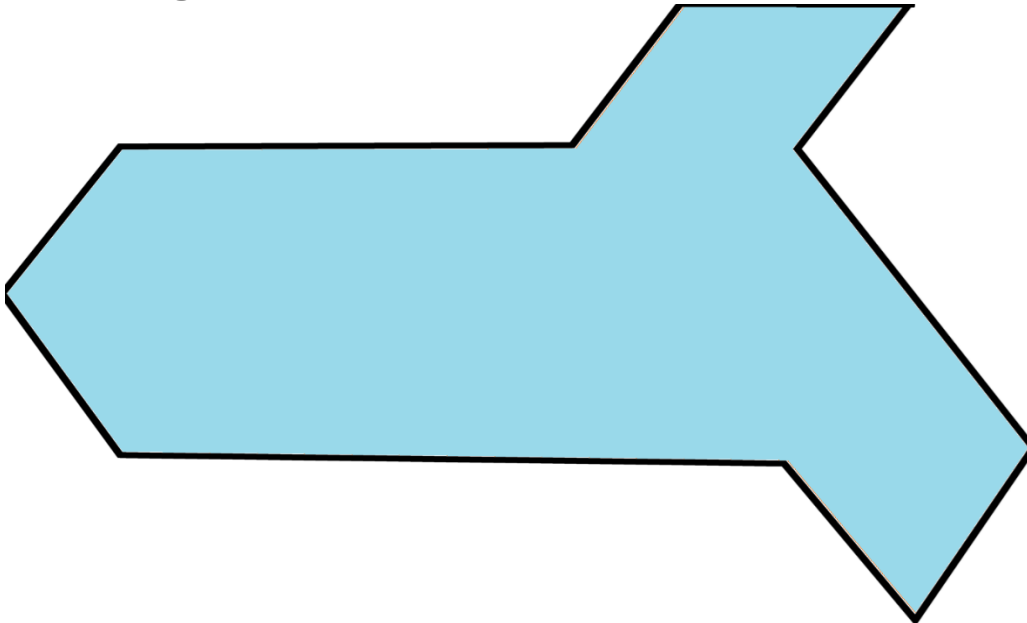


The largest face of the **yellow** pattern block is called a _____.

The largest face of the **red** pattern block is called a _____.

The largest face of the **blue** pattern block is called a _____.

Working At It: Use pattern blocks. Cover the shape below with **only yellow, red and blue**



What fraction of the design is yellow? _____

What fraction of the design is red? _____

What fraction of the design is blue? _____

Now leave the yellow, blue and red blocks in place but cover all block with green blocks.

Name each of the fractions above in another way. We are dealing with **EQUIVALENT FRACTIONS**

Framework for Learning:



Equivalent Fractions - 3

Leader's Name:

(check additional Frameworks)

Co-Leader's Name:

Instructor's Initials:

Getting Started:

Refer to the diagram to the right...

Complete the corresponding notes below.

We Think

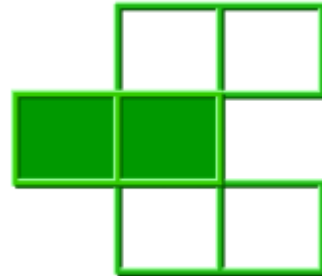
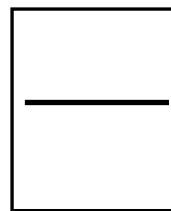
_____ squares are green.

There are _____ equal squares.

We Say

_____ of the shape is green.

We Write



Number of equal green parts

Total number of equal parts

Discuss with a partner the parts of a fraction and what each represents. Write a brief summary of your discussion below.

Working At It:

Log into **UMathXI** (if given access to UMathXI or able to access UMathX 2008)

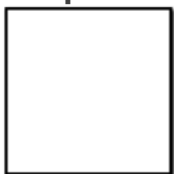
From the **Content Menu**, follow the path below:

Fractions> Section 3: **Equivalent Fractions**> Introduction

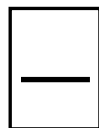
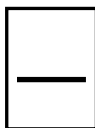
Select and complete the Lessons: **Square and Triangle**

As you work through the lessons, complete the models and notes below.

Example 1



Conclusion:



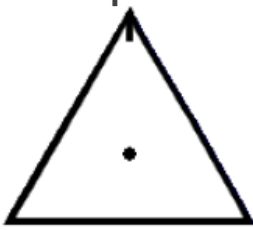
_____ out of _____ equal parts is red.

_____ out of _____ equal parts is red.

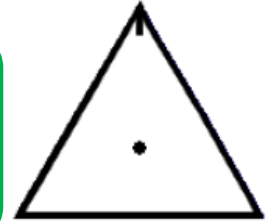
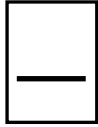
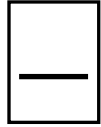
We say that _____ of the shape is red.

We say that _____ of the shape is red.

Example 2

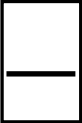



Conclusion:



_____ out of _____ equal parts is **green**.

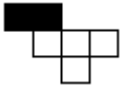
_____ out of _____ equal parts is **green**.

We say that  of the shape is **green**.

We say that  of the shape is **green**.

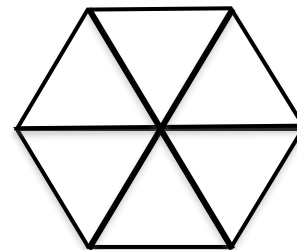
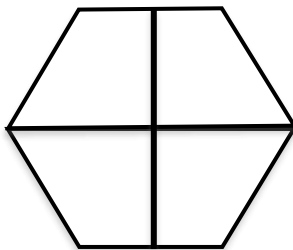
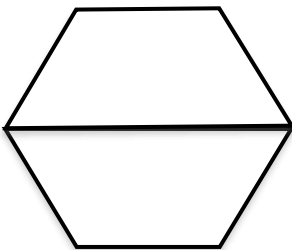
Reflecting and Connecting:


Complete the chart using the fraction model provided.

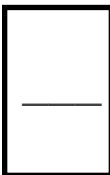
Diagram	Number of Squares Shaded	Total Number of Squares	Fraction of Shaded Squares (unsimplified)	Fraction of Shaded Squares (simplified)
				


Shade the fraction equivalent for one half on each of the hexagons.

Write the corresponding fraction below each model.



Fraction: 

Fraction: 

Fraction: 

Discuss how the graphics above lead to finding equivalent fractions. **Write** a brief summary of the key concepts below.

Add lines to complete the models for each example to explain the EQUIVALENT FRACTION.

Example 1

$$\frac{1}{3} = \frac{1 \times \square}{3 \times \square} = \frac{\square}{6}$$



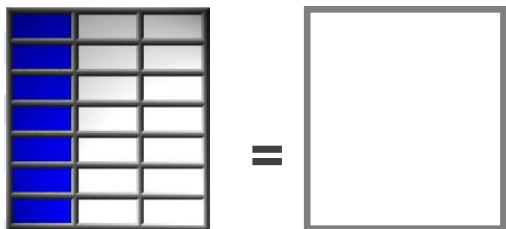
Example 2

$$\frac{6}{10} = \frac{6 \div \square}{10 \div \square} = \frac{\square}{5}$$



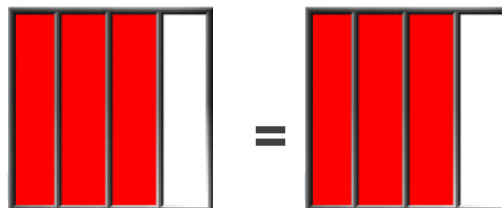
Example 3

$$\frac{7}{21} = \frac{7 \div \square}{21 \div \square} = \frac{1}{\square}$$



Example 4

$$\frac{3}{4} = \frac{3 \times \square}{4 \times \square} = \frac{\square}{12}$$

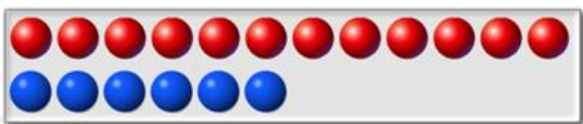


Think about each of the following sets of models and share your understanding.

18 marbles represent One Whole.

12 marbles are red.
6 marbles are blue.

$\frac{12}{18}$ is the fraction of marbles that are red.



6 sets are red.
3 sets are blue.

$\frac{6}{9}$ is the fraction of SETS of marbles that are red.



$\frac{12}{18}$



$\frac{6}{9}$



$\frac{4}{6}$

