

We are transitioning to the new UMathXI

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



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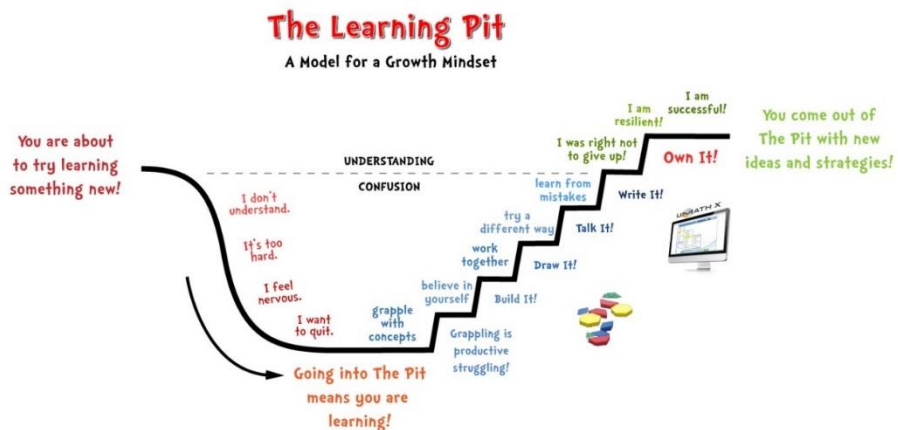
webinar/workshop
following UMathX Learning Resources are available as we transition to new UMathXI:

- [Support Sheets](#) (with solutions)
- [Frameworks](#) – model lessons (with answers)
- [Interactive Videos](#) at www.umathx.com in 6,7
- [Previous versions of UMathX](#) for K to 10
 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**

Instructions Before the Workshop/Webinar
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...

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

We suggest that you begin with BASIC CONCEPTS.

- Click on **Support Sheets** (with solutions)
Fractions Section 7 ...Ratios / Proportions

This refers to previous versions of UMathX

By mixing **Ginger Ale & Cranberry Juice** and by “tasting” our three part lessons which teach concepts: **Tape Diagrams, Ratio Tables and Double Number Lines. Scale Diagrams, Dilations, Slope** and by being given access to Lessons both online and in print for use with their **gr 6 to 10 (Algebra1)** classes.

A Tasty Introduction by teachers in OH, NY, ON, TX, MI

To make **Jackie’s & Allison’s Mayfield Ohio Fruit Punch**, we ask you to generate a mix made up of the “real” ingredients. You are provided with a personal empty cup. In addition, you are given 2 small cups with no marks on them. You do not estimate. We want to generate the perfect taste which Mayfield Punch demands. The perfect taste is generated by a ratio of **3 units of ginger ale for every 4 units of cranberry juice**. Please consider and discuss 2 methods.

Concept: Ratio Table on Computer and on Paper

When you have been given access to UMathXI,

Enter the URL www.umathx.com/preview into the address box of any browser.

Enter the Username ... then Enter the **Generic Password: umathx**

On Computer, select the – **Content Menu**.

Follow the path: **Fractions > Ratios and Proportions > Ratio Table**.



Click on **Introduction 1**. Work through it. Return to menu.

Click on the **green circled pencil icon**

Select .. **Ratio – Ratio Tables_Introduction – 2**.

Print it for a group of 2 people, one recording and the other on computer.

When you DO NOT HAVE access to UMathXI,

Click on Frameworks ... Select & print the 2 frameworks below.

AK stands for **Answer Key**. Follow instructions on the frameworks below.



NEEDS:

- COMPUTER
- FRAMEWORKS
- SUPPORT SHEETS
- SMALL CUPS WITH NO MARKINGS.
- GINGERALE
- CRANBERRY JUICE

NOTE:

LINKS TO UMATHXI WILL FUNCTION AFTER WE HAVE TRANSITIONED ALL CONTENT TO UMATHXI.

Framework for Learning:

Leader's Name:

Co-Leader's Name:



Ratio Tables – Introduction – 2

Instructor's Initials:

Getting Started:

Log into UMathX

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

Fractions> Section 7: **Ratios and Proportions**> **Ratio Table**

Select and complete the Lessons: **Introduction 1**

Introduction 2

As you work through on computer as well as off computer, have them fill tables below.

As you work through the **Introduction 1**, complete the table and corresponding notes below.

Angie's Awesome Fruit Punch requires **3 cups ginger ale** for every **4 cups cranberry juice**. We already have **12 cups of ginger ale**, so **how many cups of cranberry juice** do we need?

cups of ginger ale				
cups of cranberry juice				

Method 1: Use given ratio to _____ up to the new ratio.

As you work through the **Introduction 2**, complete the table and corresponding notes below.

cups of ginger ale		
cups of cranberry juice		

Method 2: Compare given ratio to new ratio to determine *how many groups* then _____.

Discuss the two methods used to complete the ratio tables above with your partner.

Record a summary of your discussion in the space provided.

Work through example below. The solution is in a framework marked **AK**.

Working In It:

Lawn Fertilizer

Lawn grasses grow best with a fertilizer ratio of **3 parts nitrogen**, **1 part phosphorus**, and **2 parts of potassium**. Complete the ratio table below based on the fertilizer ratio provided above.

Nitrogen	7.5	15	19.5
Phosphorus		5	
Potassium	5		13



Challenge – Gas to Oil Mixture

Some 2 cycle engines like those in dirt bikes and boats require mixing oil with gas. For an engine requiring a gas to oil mixture of 40:1, 3.2 ounces of oil are needed for each gallon of gas. Use this information to complete the following ratio table.



1 gallon = 128 ounces

oil (in ounces)	6.4		16
gas (in ounces)	256		
gas (in gallons)	2	3	5

Within **UMathX**, select the **CONTENT MENU**

Follow the path ... **Fractions > Ratios and Proportions > Ratio Table**

Note a green pencil beside “**Example 4**” indicating that a **FRAMEWORK**, a 3 part model lesson for concept exists on paper. Click on it and print it. Follow directions

You could also click on [Frameworks](#) and find the particular framework.

FOR the “PET STORE” .. IF POSSIBLE, HAVE ONE PERSON ON COMPUTER AS REMAINDER OF GROUP WORKS THROUGH ON PAPER

Framework for Learning:

Ratio Tables – Pet Store

Leader’s Name:

Co-Leader’s Name:

Instructor’s Initials:

Getting Started:

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

Fractions > Section 7: Ratios and Proportions > Ratio Table

Select and complete the Lesson: **Example 4**



As you work through the lesson, complete the table and corresponding notes below.

Family Pet Store prefers the ratio of **dogs** to **cats** to be **2** to **3**. Presently, the store has a **total of 155** dogs and cats. How many of each animal should the pet store have to maintain the preferred ratio of dogs to cats?

# of dogs					
# of cats					
Total					

The Pattern:

For any combination of **dogs**, **cats**, and **total animals**, we need to find the same number of _____ of 2 and 3 which **total 155**.

Let $g = \#$ of _____

$$\text{_____ } g = 155$$

$$g = \text{_____}$$

Discuss the advantages of using the multiplication pattern instead of addition to complete the final cells of the ratio table with your partner.

Record a summary of your discussion in the space provided.

Working In It:

Solve the following question independently.
Compare answers with your partner.
Discuss and correct any mistakes.

Floral Arrangement

Floral designers use the ratio of 5 to 3 for flower height to container height with a total height of 8 for floral arrangements. Complete the following table to be used as a quick reference guide for florists at Enchanted Garden, a local floral shop.



flower height					
container height					
TOTAL height	8	14.4	22.1	23.6	38.4

The MOST TANGY DRINK

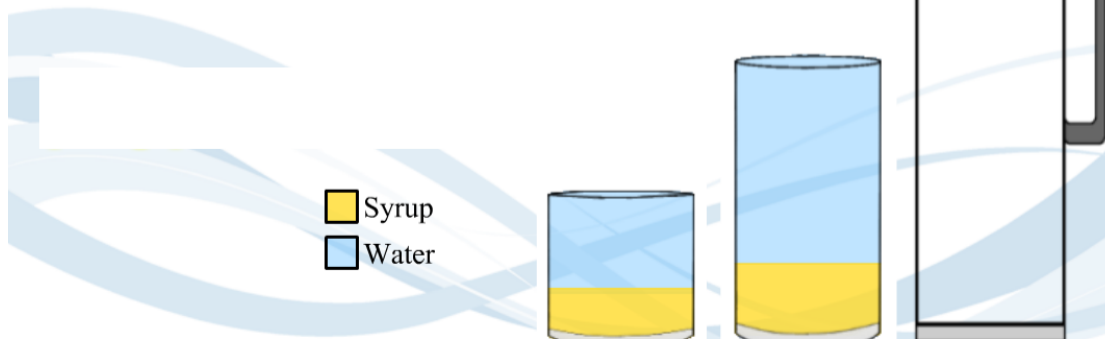
Abbie mixes lemon syrup with water so that $\frac{1}{3}$ of her full glass is syrup.

Ali mixes lemon syrup with water so that $\frac{1}{4}$ of his full glass is syrup.

Ali's glass is the same width but twice as tall as Abbie's glass.

Abbie offers to make Ali's drink more tangy by pouring the contents of both of their glasses into a large pitcher and sharing that drink.

What fraction of the combined drink is made up of syrup?



Think of one solution. Outline it below. Discuss it with your partner or with your group.

WHEN UMathXI is available then work through the solution on the computer.

THE MOST TANGY DRINK .. 2 solutions .. on Computer

On Computer, use the URL .. www.umathx.com/preview and the login and password given to you. Go to the **Content Menu** and follow the path to the lesson below in UMathX.

Fractions> Ratios and Proportions> The Most Tangy Drink> Solution 1 and Solution 2

This section will be completed and be followed with lessons on Tape Diagrams, Double Number Lines. Scale Diagrams, Dilations, Slope