

WEBINAR: Partial Products – “Get It” with Visual Learning

Please REGISTER
info@umathx.com

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



RUDY NEUFELD - AUTHOR



webinar series with UMathX

Times: We will accommodate you at the following times but also try to accommodate you at other times that are convenient for you.

7 am CDT – Baton Rouge / Houston / Chicago/ Birmingham

8 am EDT – Dominican Republic / NY / Detroit / Toronto / Atlanta

9 am Atlantic Time – Charlottetown / Halifax

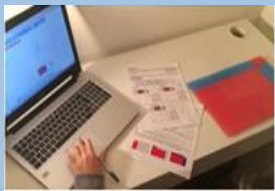
Instructions Before the Webinar

Register at info@umathx.com 24 hours before session.

Registered attendees will be invited to the webinar by email at the begin time.

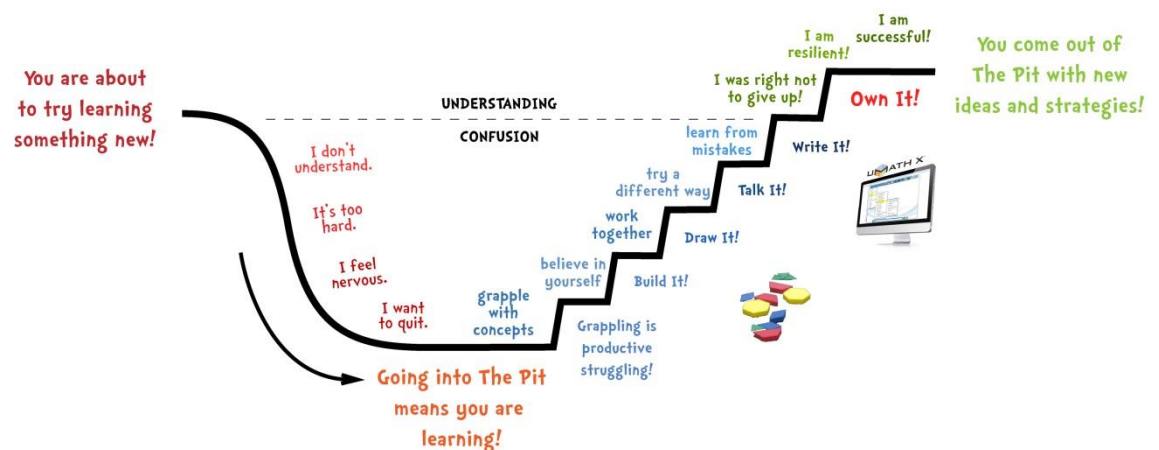
The Learning Environment

- Play the video: *UMathX–What is it?* at www.umathX.com > Media > Videos



The Learning Pit

A Model for a Growth Mindset



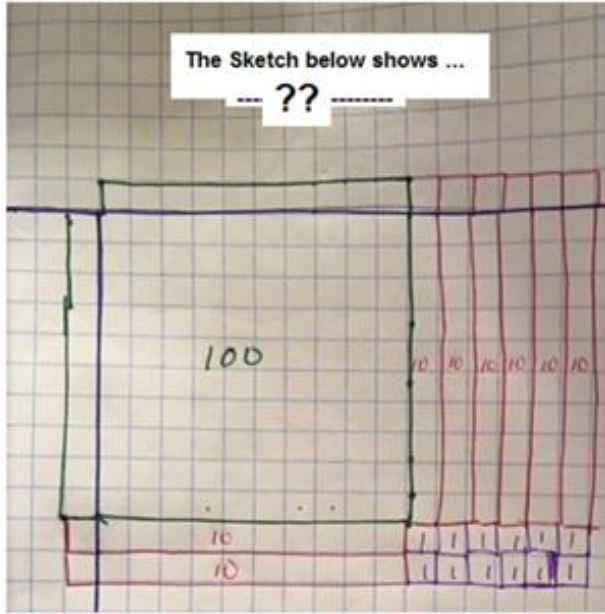
- Play the video <http://www.jamesnottingham.co.uk/learning-pit>
- Enter the URL www.umathx.com/preview into the address box of any browser.
Enter the Username that you have been given for this UMathX session.
Enter the Generic Password: **umathx**

NEEDS:

- computer
- internet
- base10 blocks
- frameworks
- pencil/pen
- crayons

Concept: Multiply 2 Digit Numbers by PARTIAL PRODUCTS

Getting Started: Use base 10 blocks to design the sketch below.
Then complete the calculation of a product below.



X

_____ __ Ones by __ Ones
 _____ __ Ones by __ Tens
 _____ __ Tens by __ Ones
 _____ __ Tens by __ Tens

Note the Progression ... Computer, Paper, Base 10 blocks

Use base 10 blocks to model the product 24 X 37 on a desk.
You end up with one solid rectangle composed of as few base 10 blocks as possible.
Then color a color coded drawing of the model on the grid below.

Model of the Product of 24 and 37

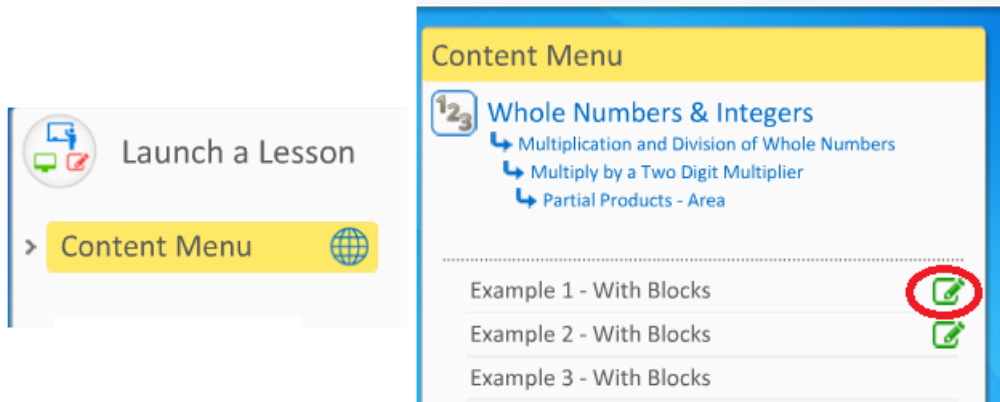
On Computer, use the URL .. www.umathx.com/preview



Select the – **Content Menu.**

Follow the path below:

Whole Numbers & Integers > Multiplication & Division of Whole Numbers > Multiply by a Two Digit Multiplier > Partial Products – Area > Example 1 – With Blocks



Note a green pencil beside “**Addition Without Regrouping**” indicating that a **FRAMEWORK**, a 3 part model lesson for this concept exists on paper. **Click on it and print out page 2, noted below.**

As you work through the lesson, complete the corresponding notes and model below. Be sure to color code the model as follows: **yellow** for **ones**; **blue** for **tens**; **red** for **hundreds**.

Partial Products – Example 1 – With Blocks

	<p>Ones</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> </table>												
	<p>Part 1: ___ Ones by ___ Ones =</p> <p>Part 2: ___ Ones by ___ Tens = ___ Tens =</p> <p>Part 3: ___ Ones by ___ Tens = ___ Tens =</p> <p>Part 4: ___ Tens by ___ Tens = ___ Hundreds =</p>												
<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> </table>							<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;"></td></tr> </table>						

Summary: $24 \times 37 =$ Sum of 4 _____
 = _____ of **Part 1** + _____ of **Part 2** + _____ of **Part 3** + _____ of **Part 4**

From the menu on the left:

Hover over Strand: **Whole Numbers & Integers**

Hover over Section 3: **Multiplication and Division of Whole Numbers**

Hover over the Lesson: **Multiply by a Two Digit Multiplier**

Hover over the Sub Lesson: **The Distributive Method**

Select and complete the Sub Lesson: **Example 1**

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

Distributive Method – Example 1

Part 1 Area: × Ones

Part 2 Area: × Tens

Part 3 Area: × Tens

Part 4 Area: × Hundreds

$\begin{array}{r} 37 \\ \times 24 \\ \hline \end{array}$	}	$(30 + \underline{\quad}) \times (20 + \underline{\quad})$
<div style="border: 1px solid yellow; width: 80px; height: 30px; margin-bottom: 5px;"></div> <div style="border: 1px solid blue; width: 80px; height: 30px; margin-bottom: 5px;"></div> <div style="border: 1px solid blue; width: 80px; height: 30px; margin-bottom: 5px;"></div> <div style="border: 1px solid red; width: 80px; height: 30px; margin-bottom: 5px;"></div> <div style="border: 1px solid purple; width: 80px; height: 30px;"></div>	$\begin{array}{r} \underline{\quad} \times \underline{\quad} = \\ \underline{\quad} \times \underline{\quad} = \\ \underline{\quad} \times \underline{\quad} = \\ \underline{\quad} \times \underline{\quad} = + \\ \hline \end{array}$	<div style="border: 1px solid yellow; width: 80px; height: 30px; margin-bottom: 5px;"></div> <div style="border: 1px solid blue; width: 80px; height: 30px; margin-bottom: 5px;"></div> <div style="border: 1px solid blue; width: 80px; height: 30px; margin-bottom: 5px;"></div> <div style="border: 1px solid red; width: 80px; height: 30px; margin-bottom: 5px;"></div> <div style="border: 1px solid purple; width: 80px; height: 30px;"></div>

Reflect & Connect: In your notebook, model the product of 35×27 using **Partial Products** and the **Distributive Method**. Compare and discuss your models with your partner. Discuss and make corrections before turning in this completed framework to your teacher.

Build It. Draw It. Talk It. Write It. Now you OWN It!



Select the – **Content Menu**.

Follow the path below:

Whole Numbers & Integers > Multiplication & Division of Whole Numbers >

Multiply by a Two Digit Multiplier > Partial Products – Area > Ex 4 – Without Blocks

Complete the following as you work through the exercise on the Computer.

count

Partial Products

Example 4 - without Blocks

We want to multiply 24×37 .

	H	T	O