

## UMathX Seminars – 7 Key Topics ... K to Alg1(gr10)

### WORKSHOP 1



#### On the Heels of Jackrabbit on Slopes at the Ski Marathon

Gr 6 to Algebra 1 (Gr 10)

**Description:** In February 1982, Jackrabbit, skied onto the trail wearing bib number 107, commemorating the number of years of his life. We will choose strategies and articulate ideas with the help of online resources and tiered three-part lessons on **Slope** and **Linear Relations** as we pit man against nature in the 100 mile Ski Marathon by Jackrabbit Johnassen. Access will be given to UMathX and lessons for you and your students. Participants are invited to bring a laptop or a tablet to model a variety of learning environments. **Gr 6 to Alg1 (Gr 10)**

### WORKSHOP 2



#### Ammie's Awesome Fruit Punch

#### Parts Ginger Ale and Parts Cranberry Juice

**Description:**

Come “taste” the result of our work through three-part lessons and online resources involving strategies and articulating ideas through **Tape Diagrams, Ratio Tables and Double Number Lines**. Participants are invited to bring a laptop or a tablet to help model a variety of learning environments. Participants and their students will be given access to UMathX and three-part lessons. **Gr 5 to Alg1 (Gr 10)**

### WORKSHOP 3

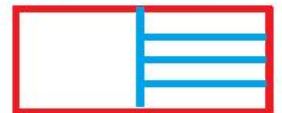


Build It -  
 Draw It -  
 Talk It -  
 Write It -  
 to OWN IT!!



VISUAL LEARNING to UNDERSTAND

FRACTION MULTIPLICATION & PARTIAL PRODUCTS



**Description:**

We will model blended learning in Fraction Multiplication and Partial Products. Three-part lessons, manipulatives and online resources will lead participants to grapple with strategies and to articulate ideas toward “seeing” solutions. Participants will receive online resources (UMathX) and three-part lessons for their classes. Participants are invited to bring a laptop or tablet to model a variety of learning environments. **Gr 3 to 6**

### WORKSHOP 4

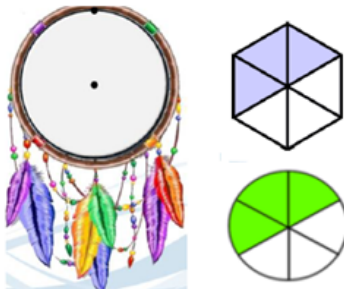


#### Power Through PLACE VALUE

Participants will “go deep” through scaffolded activities which lead students to understand through base 10 blocks, paper and online interaction. Three-part lessons will lead participants to grapple with strategies and to articulate ideas toward “seeing” solutions. Participants will receive online resources (UMathX) and three-part lessons for their classes. Participants are invited to bring a laptop or a tablet to help model a variety of learning environments. **Gr K to 5**

## WORKSHOP 5

### Fractions from Dreamcatcher's Equal Parts to Johnny and Agatha on Ice



Original Problem with Unlike Denominators.

Johnny + Agatha

New Problem with Like Denominators.

Johnny + Agatha

Solution:

You write the problem. \_\_\_\_\_

Your partner will solve the problem. \_\_\_\_\_

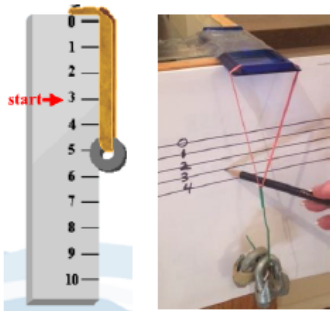
#### Description:

We will scaffold lessons from Equal Parts to Equivalent Fractions to Real World Problems in Addition of Fractions. Three-part lessons, manipulatives and online resources will lead participants to grapple with strategies and to articulate ideas toward “seeing” solutions. Participants will receive online resources (UMathX) and three-part lessons for their classes. Participants are invited to bring a laptop or tablet to model a variety of learning environments. **Gr 3 to 5**

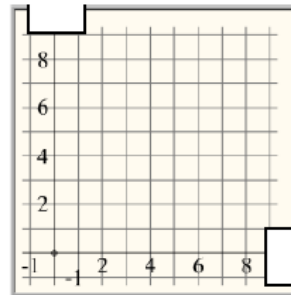
## WORKSHOP 6

### STEAM..ing from weights to ... RELATIONS

#### Data, Table, Grid, Equation



# of Washers (N)	Stretch in cm (S)



Equation: \_\_\_\_\_

Restrictions:

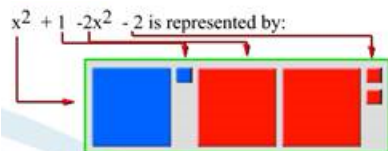
N  \_\_\_\_\_

S  \_\_\_\_\_

#### Description:

This session will model a **STEAM** Activity in which washers, elastics (rubber bands in USA!) and weights are used to lead to 3 ways of representing and interpreting a **Mathematical Relation**. Participants will work through three-part lessons and online resources involving strategies and articulating ideas toward understanding Relations. Participants are invited to bring a laptop or a tablet to help model a variety of learning environments. Participants and their students will be given access to online resource, UMathX and three-part lessons. **Gr 6 to Alg1 (Gr 10)**

## WORKSHOP 7



### Think Inside The Box

#### ALGEBRA TILES Make It Visual

#### Description:

Participants will experience “**Visual Learning**” by “grappling” with topics in introduction, addition, multiplication and factoring of algebraic expressions. We will model whole-class and small group differentiation through tiered 3-part lessons using **Algebra Tiles**, paper and online resource, UMathX. Participants are invited to bring a laptop or a tablet to help model a variety of learning environments.

Participants and their students will be given access to UMathX and three-part lessons. **Gr 6 to 8**