Session 590:
168 Solutions: Developing Algebraic Thinking with Number Tiles

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8:00 – 9:15 am
Hilton Bayfront,
Indigo D

Overview of Session

- Largest Sum
- 168 Solutions
  - Conjectures
  - Proofs
- Number Tile Activities
- Discussion

Number Tile Activities

- Collection of pages from various sources
  - www.GotToTeach.com (buy at Teachers pay Teachers)
  - www.evilmathwizard.com (buy at Teachers pay Teachers)
    - ipad versions available
    - Activity titles use “number squares” not “number tiles”
  - Algebra Using Number Tiles by Don Balka
  - Developing Algebraic Thinking with Number Tiles by Don Balka

Number Tile Activities

- Topics included in your packets:
  - Balancing Equations
  - Order of Operations
  - Factors and Multiples
  - Function Tables
  - Exponents
  - Solving Linear Equations
  - Factoring Quadratic Equations
  - Equations of a Line, Slope, Intercept
  - Solving Quadratic Equations by Factoring
  - Solving Quadratic Equations using the Quadratic Formula

Number Tile Activities

- Read directions.
  - Most use all 10 tiles one in packet only used 5.
- Your plastic baggie has one set of number tiles. Easy, quicker to handout and keep track.
- At the end of the session please place all your tiles in the little bag and leave in the center of the table.
- Operation tiles exist but were chosen to be taken out.

Let's work together on Factors and Multiples p.5

What are all the factors of 12:

1,____, ____ , ____ , ____, 12

What is the greatest common factor of 21 and 14? ____

A multiple of 5: ____ ____

A multiple of 7: ____ ____

What is the least common multiple of 16 and 20? ____

Let's work together on Factors and Multiples p.5

What are all the factors of 12:

1, 2, 3, 4, 6, 12

What is the greatest common factor of 21 and 14? 7

A multiple of 5: 1 5

A multiple of 7: 4 9

What is the least common multiple of 16 and 20? 80

What was different in doing this with tiles verses on paper?

Start working on an activity of your choice

- We will stop in a bit and discuss your work with the tiles.

Making Number Tile Activities Work In Your Classroom

- Some practical suggestions:
  - Bag tiles for individual use
  - If you have tables place enough bags in a larger bag
- Work through an “easy” activity so that students have an understand of how the activity works.
- Your plastic baggie has one set of number tiles. Easy, quicker to handout and keep track.
  - Highlight each digit has it’s own tile
  - 6 and 9 are different.
- Operation tiles exist but were chosen to be taken out. You decide for your class

Comments and Discussion

Questions

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- Thank you

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