Then & Now: Integrated Math III vs. the Old Intermediate Algebra Course

Session B5; Room: 701; 2:30-3:20 PM

Go to Jotonce.com

- Type in the passcode:

    IM3ROCKS

- You will have access to my slides and resources ☺

- Save the link!

Melody Morris

- Math Teacher/Teacher Leader at Olympian High School in Chula Vista, CA

- Sweetwater Union High School District (SUHSD): 10 Years

- SUHSD Teacher of the Year

- Member: Math Professional Alignment Council (MPAC)
  – A collaboration between Southwestern College professors and SUHSD teachers to identify and target the achievement gap for students exiting Integrated Math III and entering the community college system

Goals of the Session

- Intermediate Algebra standards… where are they now?

- What does an IM3, Common Core classroom look like?

Skill Sort

- What course do you think the skill belongs in? Sort the problems into categories: IM1, IM2, IM3 or Higher Math.

Integrated Math 1

- E, K, and U
- Exponential functions: taught in IM1, expanded upon in IM3
- Increased focus on Probability & Statistics
- Solving absolute value equations & inequalities: taught in IM1, expanded upon in IM3

Integrated Math 2

- J, L and T

- Operations with complex numbers

- Completing the square to write the equation of a circle

- Probability

Higher Math

- C

- Conic Sections de-emphasized and taught in pre-calculus

- Unit circle and basic trig functions reviewed, but introduced in IM3

Integrated Math 3

- All the rest!
- De-emphasis on simplifying and solving rational expressions and equations
- New: Solving non-right triangles
- New: Unit Circle
- New: Graphing basic trig functions

Integrated Math 3

- What's New?

It's less about WHAT we're teaching and more about HOW we are teaching.

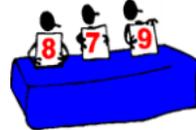# Standards for Mathematical Practice (SMPs)

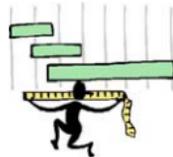1. Make sense of problems and persevere in solving them.

2. Reason abstractly and quantitatively.

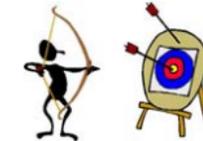3. Construct viable arguments and critique the reasoning of others.

4. Model with mathematics.

5. Use appropriate tools strategically.

6. Attend to precision.

7. Look for and make use of structure

8. Look for and express regularity in repeated reasoning.

Integrated Math 3

- Teacher as facilitator, not the "sage on the stage"
- Engaging students in productive struggle
- Emphasis on conceptual understanding

Common Core State Standards

- **Reasoning with Equations and Inequalities**

- Represent and solve equations and inequalities graphically.

- 11. Explain why the x-coordinates of the points where the graphs of the equations y = f(x) and y = g(x) intersect are the solutions of the equation f(x) = g(x); find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.

- **Creating Equations**

- Create equations that describe numbers or relationships.

- 1. Create equations and inequalities in one variable including ones with absolute value and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions. CA

Common Core State Standards

Standards for Mathematical Practice:

- Attend to precision
- Look for and make use of structure
- Use appropriate tools strategically

Thank you!

- Please feel free to contact me:

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