

Math Teachers' Circles: A Time of FUNstration

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Heartland Math Teachers' Circle



Outline

- Motivation to Start
- Organization of Summer Workshop
- Organization of Individual Sessions
- Problems
- Lessons Learned
- Teacher Comments
- Questions

Motivation to Start Heartland MTC

- AMTE in Fort Worth
 - Diana White's Presentation about Research of MTC's
 - (1-100 problem)

Organization of Summer Workshop

- Pre-Workshop
 - Advertising through e-mail, brochures,
 - Relied on organization of previous math circles
 - Logistical planning
 - Contacting facilitators (discuss sessions to be done)

Organization of Summer Workshop

- Workshop Schedule (Monday-Thursday plus half-day Friday)
 - 8:30-9:00 Warm-Up/Salute (Introductions on first day)
 - 9:00-10:25 Problem Solving Session
 - 10:35-12:00 Problem Solving Session (possible continuation of earlier session)
 - 12:00-1:00 Lunch Break (Excellent food by Pioneer Caterers)
 - 1:00-2:30 Problem Solving Session
 - 2:45-4:00 Problem Solving Session (possible continuation of earlier session)
 - 5:00-6:30 Dinner (Tuesday night only)

Organization of Individual Sessions

- Problem Presented (or Information Introduced)
- Participants Produce (FUNstration for Folks)
- Progress Presented Purposefully
- Solution Stated (Seldom sino Sometimes)
- Deliberate Debriefing (Differs)
 - Strategies Specified
 - Common Core Communicated

Types of Problems

- Accessible to All (Multiple entry points, progress for everyone)
- Use CCSSM
- Lead to advanced mathematics
- Favorites
 - Intersection Math (James Tanton)-All of the Mathematical Practices of the CCSSM
 - SET (Brian Conrey, Brianna Donaldson, presented by Diana White)
 - Mathematical Games (Paul Zeitz)
 - Etc. (Many Favorites)



















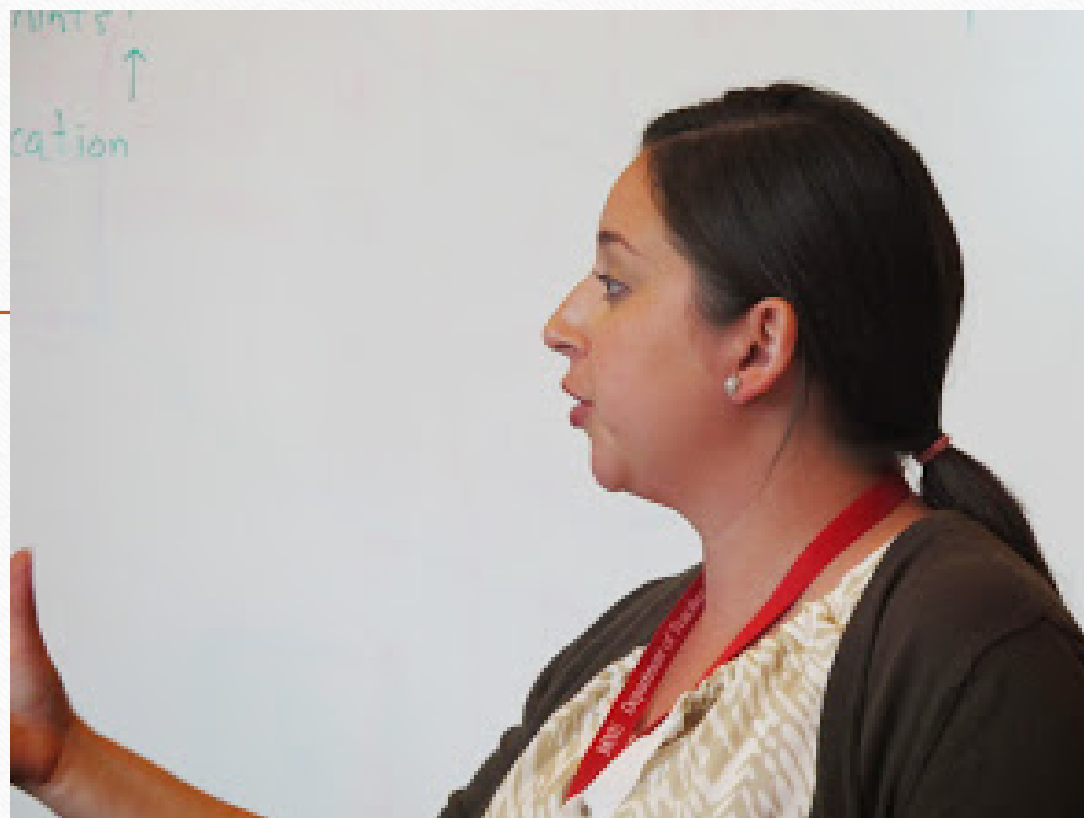


Lessons Learned (or Learning)

- D o n ' t R u s h !
- If leading the summer workshop for the first time, don't lead a session everyday (or at all).
- Select/Recruit team carefully.
- The leader needs to delegate.
- Proof your t-shirts carefully.

Lessons Learned (or Learning)

- Have experienced middle school teacher warn (yet encourage) participants.
- Registration Fees and Stipends?
- Not everyone likes the same problems that I like. (Have variety.)
- Plan to pursue presentations at more conferences
 - Olathe Professional Development Workshop
 - Kansas Association of Teachers of Mathematics



Teacher Comments

- I love math, and I feel re-energized. I haven't been this intellectually challenged since college. Also, networking has really helped me professionally.
- I found it rejuvenating and fun. I felt the content was good, and the presenters were fantastic. I was pleasantly surprised by how much I enjoyed it.
- I need to find time to fit problem solving into my plans...I was reminded this week that it is vital.

Teacher Comments

- I learned to be less helpful.
- ...it is “FUN”...by the way, you will re-discover how much you love math and that will translate to how you feel about teaching math.

Theme Song (by Holly Nelson)

- If you're in a math circle
You're bound to feel fun-stration.
Even though the answer sets
are proved by demonstration.
Don't worry you won't work alone
you'll find cooperation.
If you're in a math circle
You're bound to feel fun-stration.

Um diddle diddle diddle um diddle ay
Um diddle diddle diddle um diddle ay

Theme Song (by Holly Nelson)

- The problem 1 thru one hundred
began my aggravation
Then jugs and ropes and tree samples
were used for stimulation.
We used metaphorical parity
and simple computation
If you're in a math circle,
You're bound to feel fun-stration.

Um diddle diddle diddle um diddle ay
Um diddle diddle diddle um diddle ay

Theme Song (by Holly Nelson)

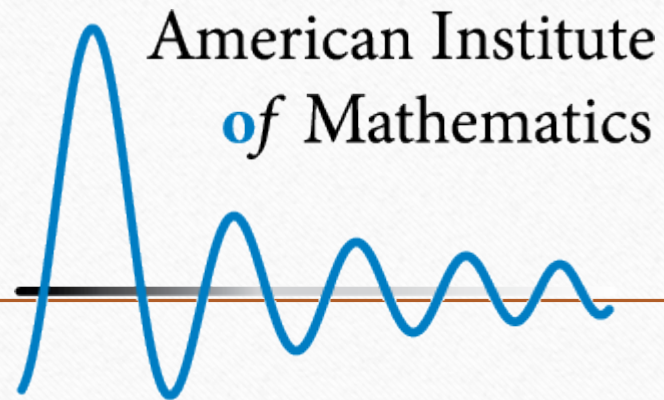
- The folks who came were not select
There was an open invitation.
From Wellsville, Olathe, and Shawnee
They gave up their vacations.
Don't think this is a Kansas thing
Math circles are found throughout the nation.
If you're in a Math Circle,
You're bound to feel fun-stration!

Um diddle diddle diddle um diddle ay
Um diddle diddle diddle um diddle ay
Supercalifragilisticexpialidocious!



Questions?

Thank you!



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- Great Resources from www.mathteacherscircle.org