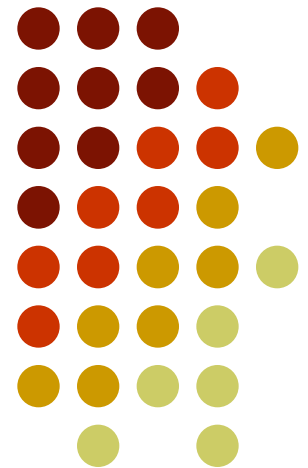


Introduction

Math 4090



Warm-up ~ 10 minutes



- You will find a sheet with a problem on your table. Discuss the problem and think about how you'd solve it with the members of your group.
- We will discuss what you come up with in about 10 minutes.

Problem:



What can you say about angle bisectors of a parallelogram?

Goals



- What kind of **mathematical work** should we expect students to do in our **class** and how can we teach them to do it and value it?
- How can we **explain mathematical concepts** ?
- How can we **explain procedures**?
- What are the uses of **homework**?
- What is the value of **classroom discourse** ?
- What is the value of **using problems as vehicles** for ?
- How and when can we **provide practice**, and what can we do to support practice?
- What is the value of **previewing and summarizing**?
- What are the **outcomes** we should aim for, how do we create **instruments that assess them**?
- What do we need to think about when we **plan a lesson or a unit**?
- What **tools** are available to use in the mathematics class ?

Principles

- Equity
- Curriculum
- Teaching
- Learning
- Assessment
- Technology



Standards



- Content standards:
 - Numbers and operations
 - Algebra
 - Geometry
 - Measurement
 - Data analysis and probability
- Process standards
 - Problem solving
 - Reasoning and proof
 - Communications
 - Connections
 - Representations

Text



- Principles and Standards for School Mathematics – NCTM
- A supplement text chosen by you
- Reference materials:
 - Mathematics Teaching in the Middle School NCTM
 - Mathematics Teacher , NCTM
 - Utah State Core Curriculum www.usoe.k12.ut.us
 - Addenda Series (in Math Library)
 - List of articles (will be available on the course webpage shortly)

Website



- <http://www.math.utah.edu/~emina/teaching/4090f07>
- WebCT

Course work



- Homework assignments 20 points
- West High field experience 20 points
- Formal lesson plans (2) 15 points
- Unit Plan 15 points
- Lesson presentations (3) 10 points
- Portfolio 10 points
- Participation & professional responsibilities 10 points



Professional responsibilities

- Prof. development: Teachers' Circle
- Tutoring:
 - Third District Juvenile Court Tutor Program
 - Bryant Intermediate
- NCTM conference:
 - Volunteering

Assessment



- 100% Superior work, well-above basic expectations, very thoughtfully composed, minimal writing errors, on time.
- 90% Excellent work, above basic expectations, thoughtful, few errors, on time.
- 80% Good work, as expected, successfully communicated, one day late.
- 70% Adequate work, some omissions, minimal thoughtfulness, unclear or multiple errors, late.
- 60% Inadequate work, incomplete, not thoughtful, multiple errors, late.