

Math/Science Partnership Grant

Bismarck Public School District and North Dakota Mathematics Education Collaborative would like to thank Karen Nelson and the MSP grant for cooperation and sponsoring this project.

Many think that "Numerical Reasoning" is only taught in the elementary school, but take a look at this problem that will be presented in the 9-day session:

The Marriage Problem

In a town, $\frac{4}{5}$ of the men were married to $\frac{1}{3}$ of the women. What fraction of the people in the town were married?

Challenge #1: Can you represent a solution to this problem algebraically? Geometrically?

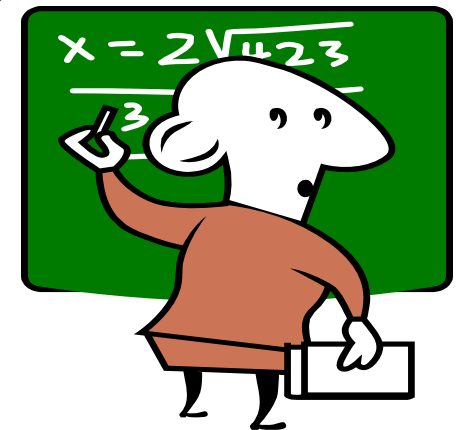
Challenge #2: What wrong answers would you expect from students and why?



Developing and Assessing Mathematical Understandings: Numerical Reasoning

July 10 - 20, 2007

Brought to you in cooperation by the Karen Nelson (MSP Grant) and Bismarck Public Schools



If you have questions about the content of the workshop, contact Lori Gibson.
Phone: (701) 355-3067
E-mail: lori_gibson@educ8.org



Registration Form

Developing and Assessing Mathematical Understandings: Numerical Reasoning

July 10 - 20

This is an opportunity for teachers to...

- Receive four 400 quarter math credits from Western Washington (\$48/credit = \$192)
- OR receive four 500 level semester continuing education credits from University of San Diego (\$55/credit = \$220)
- OR continuing education credit through Minot State University
- Receive materials and valuable information on numerical reasoning.
- Collaborate with other teachers from outside districts
- Lunch and snacks will be provided daily.

Who:

Math teachers (grades K-12)

Note: A pre-requisite for this course is Algebraic Reasoning (9-day summer course).

Enrollment is limited to 40

When:

July 10 - 20, 2007

8:30 am-3:30 pm

District Responsibilities:

Pay \$120 registration fee.

It is recommended that districts pay teachers a stipend for attending this course.

Districts are responsible for reimbursement of travel and evening. Housing at BSC will be covered through the grant.

Where:

Bismarck Hughes Educational Center

806 N Washington.

Bismarck, ND

Registration Deadline: May 24, 2007

Mail Registration form to:

Lori Gibson

806 N Washington

Bismarck, ND 58501

Lori_gibson@educ8.org

Name _____

Home Address _____

Work Address _____

Home Phone _____

Work Phone _____

E-mail _____

Grade Level in which you teach mathematics: _____

Is BSC housing needed? Yes or No

Cost:

\$720 per participant. The MSP grant will cover \$600 of the cost for each teacher. **Districts will be expected to send \$120 with the registration form by May 24, 2007. Please enclose a payment of \$120 made payable to Bismarck Public Schools.**

It is recommended that each district pay a stipend to each teacher that attends. **We are looking for other sponsors to help cover stipends for the teachers.**

Developing and Assessing Mathematical Understanding: *Numerical Reasoning*

July 10-20, 2007

8:30 am -3:30 pm

Bismarck Hughes Educational Center

Bismarck, ND

Phone: (701) 355-3067

Fax: (701) 355-3001

E-mail: lori_gibson@educ8.org

The 9-day course is designed to develop and deepen participants' understanding of number and improve their numerical reasoning skills specifically with regard to the following:

- place value;
- number relationships that build fluency with basic facts;
- number and computational proficiency - developing a deep understanding of numerous diverse computational algorithms;
- mathematical models to represent fractions, decimals and percents;
- equivalencies and operations with fractions, decimals and percents;
- number theory including order of operations, counting as a big idea, properties of number;
- primes and composites, perfect, abundant and significant numbers, and figurate numbers;
- inductive and deductive reasoning;
- the nature of learning and characteristics of an optimal learning environment; and
- ways of assessing mathematical understandings

