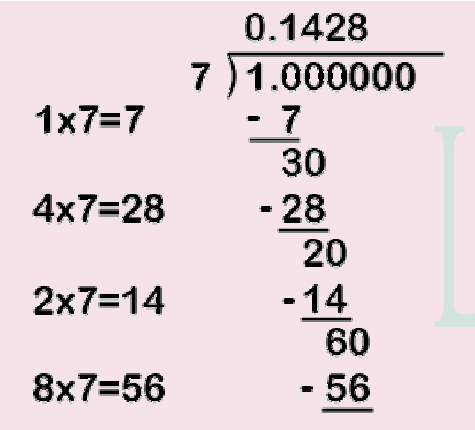
A FOCUS ON MATHEMATICS SEMINAR

What is Long Division Good For?

Presented by:

Allen Olsen

Assisted by the Algebra study group
From Lawrence High School



Date:

February 7, 2005

Place:

SOUTH LAWRENCE EAST SCHOOL
Music Room
165 CRAWFORD ST., LAWRENCE

Time:

3:00 – 6:00 PM

In this seminar, we'll look for patterns in the structure of repeating decimal expansions for fractions and ask: *Can we predict how many digits it takes before the expansion repeats? Which numbers have decimal expansions that terminate, and how many digits long are they?* Since the number of digits in the repeating part of most rational numbers is longer than any calculator window, these patterns are only accessible by hand calculation.

This investigation is accessible for students and teachers from upper elementary through college and can used to showcase a surprising amount of number theory using a technique that students are already familiar with – long division. Students at LHS enjoyed tackling these problems with pencil and paper that their calculators couldn't touch!

We'll also discuss some classroom extensions and we'll hear from some other teachers who have been exploring this topic in their LHS study group.

DEADLINE FOR REGISTRATION IS FEBRUARY 3, BUT SPACES WILL BE FILLED ON A FIRST COME BASIS. PLEASE CONTACT YOUR DISTRICT LEADER FOR REGISTRATION. MORE INFORMATION AND DIRECTIONS TO SOUTH LAWRENCE EAST SCHOOL CAN BE FOUND AT WWW.FOCUSONMATH.ORG.

REFRESHMENTS WILL BE SERVED FROM 3:00 TO 3:20.
THE SEMINAR WILL BEGIN PROMPTLY AT 3:30.

Focus on Mathematics is a unique partnership of mathematicians and educators from Boston University, Education Development Center, Inc., Worcester Polytechnic Institute, UMass Lowell, Lesley University, and five Greater Boston school districts: Arlington, Chelsea, Lawrence, Waltham, and Watertown.

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