

The Square Route

A Mathematical Journey November/December 2011



DLRC Resources

The DLRC has some amazing resources for Mathematics teachers. Visit the DLRC site through your school library or visit in person.

Primary

The Super source.

Activities with manipulatives.

Grades K-2 [kit].

This kit contains materials and teacher resources (including black line masters).

The kit also contains tangrams, pattern blocks, Cuisenaire rods, base ten blocks, colour tiles, snap cubes and geoboards. For those teachers new or nearly new to teaching at the k-2 level, this is a great resource to start working with concrete manipulatives in the classroom.

Intermediate

Investigating fractions, decimals, and percents.

Grades 4-6 [kit]

by Catherine Twomey Fosnot

This kit is a terrific compilation of resources around investigative studies of fractions, decimals and percents. It may take some time to go through the materials, but the student learning that results more than makes up for the initial start up time.

Secondary

United we solve : math problems for groups, grades 5-10

This resource provides some great examples of math problems that address group learning and students constructing their own methods of problem solving through collaboration.

See the DLRC for more details.

Numeracy in Early Primary: "The what do they know assessment"

Sandra Ball and Carole Fullerton have put together a great resource that follows number sense by using two books: Five Creatures, by Emily Jenkins; and Mouse Count, by Ellen Stoll Walsh. With blackline masters and other manipulatives, the resource looks at assessing students on their conceptual understanding of the number strand using Dot Tasks, Story Tasks, and Pattern Tasks. We are in the process of putting together this resource for the DLRC. If you wish a copy of resource, contact me at brynm.williams@sd41.bc.ca

Problems of the Week

Check out the Mathematics Blog to see the weekly Problems of the Week for grades 7/8, 9/10 and 11/12. Each week, a new problem is posted with the previous week's solution.

The Missing Dollar Problem

Three people agree to share a hotel room and pay \$30 when they check in. Later, the clerk finds that they should have been charged only \$25. The Bellhop goes to the men with the \$5 refund. Since the Bellhop cannot split \$5 into three equal parts, he returns only \$3 and keeps the \$2 as a tip. Now, each person paid \$9 for a total of \$27 and the Bellhop has \$2, making the total amount \$29.



What happened to the extra \$1?

Taken from Problem Solving...a basic mathematics goal
(Ohio Department of Education Columbus)

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Or go to the Math Blog:

<http://blogs.sd41.bc.ca/math>



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Mathemagic! Number Tricks

Written by Lynda Colgan

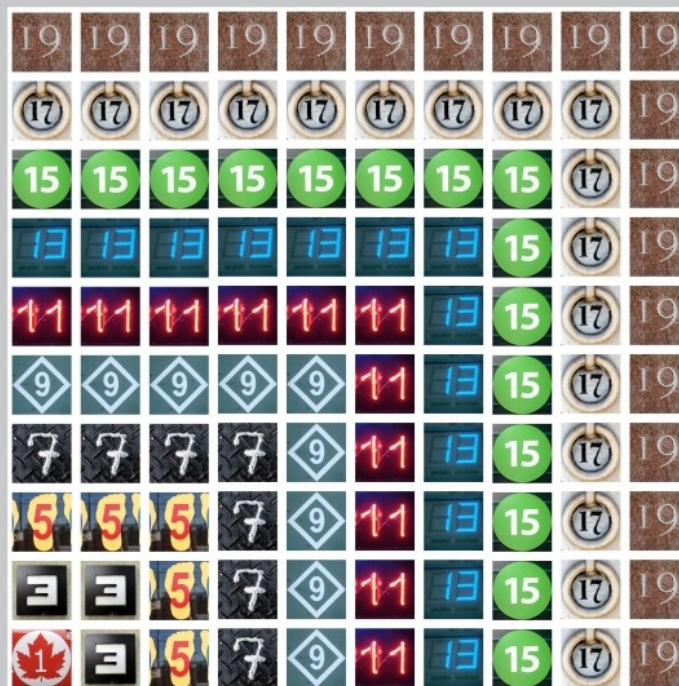
Illustrated by Jane Jurisu

Written with young students in mind, this book has some great 'tricks' for a budding mathematician. By showing, step by step, both the performance of the 'tricks' and the math behind them, any student with an interest in number sense will find this book interesting.

"The Secret of 73"

1. Secretly write the number 73 on a piece of paper. Fold it up and give it to an audience member to keep safe.
2. Ask for a volunteer assistant. Hand them a calculator. Turn away so you cannot see the numbers.
3. Tell you assistant to pick any 4-digit number and enter it twice on the calculator (ie, 12341234)
4. Announce that you know that the number is divisible by 137! Ask your assistant to try it.
5. Now ask if the number can be divided by the original number? (Yes)
6. Finally, ask your audience member to read the number you wrote and compare it to the number of calculator. (It should be the same number)

Taken from Chris Hunter's [Blog](#)



$$1 + 3 + 5 + \dots + (2n - 1) = n^2$$

photos by mag3737 (flickr)

Blogs and Twitter

Are you on Twitter? Do you use a blog in your classroom? Let me know and I can send out the informational links so others can share you knowledge. Or follow me @brynmw. Also, share your tweets with

Problem of the Month

If you have 1001 pennies in a row and replace every second penny with a nickel. Then replace every third coin with a dime. Finally, replace every fourth coin with a quarter. How much money is now on the table?
Taken from the BCAMT listserve.

