Popsicle Stick Abacus

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For each abacus in this version, you will need:

- 12 craft sticks
- 8 4-inch pieces of \( \frac{1}{8} \)-inch diameter doweling.
- 56 pony beads, three different colors (21, 21, 14)
- white glue

Use the grid on the right as a template. The dotted lines show where the dowels will be placed. The squiggle (\( \bigcirc \)) represents glue.

1. Glue two popsicle sticks together. Repeat this five more times. Place three glued pairs on top of the template, diagram 1.

2. Put a line of glue on top of the three popsicle stick pairs as shown in diagram 1.

3. Put 7 pony beads on a piece of doweling and place on top of the template, directly above the glue, as shown in diagram 2.
4. Continue to glue the dowels with the beads as shown in diagram 3. Using different colors can help with place value. Be sure to use the template (diagram 1) as a guide.

5. Glue the last three popsicle stick pairs on the top of the assembly.

The idea for this project came from a webpage entitled, "The Popsicle Stick Abacus" by Mr. Barinque. The url is:

http://www.ee.ryerson.ca/~elf/abacus/popsicle/
Popsicle Stick Abacus - 4 Rods

For each abacus in this version, you will need:

- 9 craft sticks
- 4 4-inch pieces of \( \frac{1}{8} \)-inch diameter doweling.
- 28 pony beads
- white glue

Follow the same procedures shown for the 8-rod abacus.
Record the numbers represented on each abacus
Record the numbers represented on each abacus
Shade in the beads to represent numbers.
Record the values in the boxes.
Use different colors of beads to represent different whole number periods.

Expressing powers of 10 with exponents is another nice fit.

The abacus is a natural device to amplify important place value concepts. Use it in conjunction with place value charts.

Using colors can also represent decimal fractions.