Problem of the Week
Problem A
Crafty Construction

Sam is making square picture frames for his friends and family. He has one box of popsicle sticks and there are 50 sticks in a box. He needs to make 13 frames.

A) If Sam builds individual frames like this:

will he have enough material to build 13 individual frames? Explain your answer.

B) Instead of individual frames, he decides to connect the frames in a line so that any two frames share at most one popsicle stick.

If he built the frames this way, would he have enough sticks in a box of 50 to make connected frames for 13 pictures?

C) Can you draw another layout of the 13 frames where any two frames share at most one popsicle stick?

D) What is the fewest number of popsicle sticks you would need to make connected frames for 13 pictures?

Strands Patterning and Algebra, Number Sense and Numeration