

Teacher Guide

BMC Issue: #50, Finite Geometry

Subjects: Geometry, Finite Geometry

Grade Level: 4th grade and up

Topics: Lines, Planes, Parallel Lines, Sets

Lesson Aim/Objectives:

- Work with points and lines
- Solve a connecting dots problem
- Observe patterns in connecting dots with lines
- Learn to recognize Finite Planes

Common Core Standards:

Seeing Structure in Expressions A-SSE

Interpret the structure of expressions. Interpret expressions that represent a quantity in terms of its context.

Modeling with Geometry G-MG

Apply geometric concepts in modeling situations.

3. Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).

Congruence G-CO

Experiment with transformations in the plane.

Math Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
7. Look for and make use of structure.

Materials:

- Print
 - BMC issue
- Bring
 - Pens or pencils
 - Any paper

Terms:

Geometry: points, lines, non-intersecting, intersecting, infinite, finite

Instructions:

1. Read activities in newsletter
2. Register for BMC meeting to get Zoom link
3. Instruct students to consider the hosts as guests in the classroom.
4. Pass out a copy of newsletter to each student.
5. Tell students we encourage participation; they should share results, drawings, and ask questions. They can show their papers to the camera.

Notes:

- Test technology; if problems arise, please let hosts know.
- Use the recap issue to revisit problems in the classroom
- Provide feedback