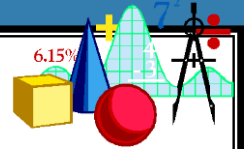


## Mathematics, Geometry

### Unit I: Lesson 1

### Investigation: Human Geometry



Unlike Euclidean geometry, some geometries have a finite number of points. Since the terms point, line, and plane are undefined, we can explore different interpretations. For our geometry we will use the following:

|                         |        |           |       |
|-------------------------|--------|-----------|-------|
| <b>Term:</b>            | point  | line      | plane |
| <b>Interpretations:</b> | person | committee | club  |

Rewrite the first five postulates using these terms. Pick the names of four people. List all the committees and clubs you would need to satisfy the five postulates. Check to see if you can also rewrite any of the first few theorems in your textbook using these terms. Verify that these theorems are true in this new geometry. Add a fifth person to your geometry. How does this change the number of committees and the number of clubs? Keep adding one person at a time. Can you find a pattern?

Make a poster listing the postulates using these terms. Devise a way of illustrating this geometry. Explain what happens as the number of people increases.