

**Title of Activity:** Human Graph

**Content Area:** Mathematics

**Standard: 5.G1** Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).

**Rationale:** In the book *RULES*, Catherine provides David with rules that continually remind him what is expected of him and what is appropriate and not appropriate for him to do. Through this lesson, students will be able to understand that there are rules that apply not only to society, but also to mathematics. Specifically, students will learn the rule of Rise over Run to calculate the slope of a line given two or more sets of coordinates.

**Detailed Instructions/Procedures:**

1. Students will create a graph on the gym floor using string and masking tape and labeling axes.
2. Provide each student with an index card which has a set of coordinates listed
3. Each student will find their point and stand on it (this should be done in small groups of 4-5 students)
4. Provide students with string and have them connect points to form a line
5. Students work in "line groups" to find the slope of the line (rise/run)
6. Share findings with the large group
7. Individual practice finding slope of lines that have been graphed using coordinates

**Materials needed:**

- Masking tape
- Heavy string or yarn
- Index cards with coordinate points (mixed across all 4 quadrants)

**References**

Digital Storytelling / Math Video: <https://www.youtube.com/watch?v=dKyel6JU9vE>  
*RULES* by Cynthia Lord