

Explore Graphs of Linear Inequalities

Description

Students will work individually and as a class to discover the graph of linear inequalities.

Prep Work

None

Instructions

○ Pre Activity

None

○ Activity

- Give the class a linear equation and ask them each to find 5 points that lie on the graph.
- Draw a coordinate plane with axes on it on the board. Have each student come up and plot his or her five points. They cannot repeat the same 5 points as any previous student. They should get the idea that they can plot five points pretty easily if they just lie on the line.
- Next give the class a strict linear inequality and have them find 5 points that satisfy that.
- Next have each student come up and plot his or her five points. They cannot repeat the same 5 points as any previous student. They should get the idea that they can plot five points pretty easily if they just lie above or below the line.
- Discuss what happens when the inequality includes an equal to part.
- Expand this activity by adding a second inequality with a greater than or equal to or less than or equal to symbol. Discuss which points satisfy both inequalities.
- Specifically discuss points that lie in only one shaded region, both shaded regions, on the lines themselves, and the intersection of both lines.

○ Post Activity

None

Time Required

30 minutes
