

SCAN CONVERSION LINE DRAWING (Slope dependent)

1. Given the start and endpoints write a java program to draw the line (slope $m = 1, -1, 0, \infty$) using points.
 - a. If slope m is 1 then, increment x and y draw the point
 - b. If slope m is -1 then, increment x and decrement y
 - c. If slope m is 0 then, increment x
 - d. If slope m is ∞ then, increment y
 - e. For any other slope declare invalid

Procedure:

Read the coordinates (from user or a .txt file)

Calculate the slope m

Choose among the four orientation of straight lines (diagonal $\{m = +/- 1\}$, horizontal $\{m = 0\}$, vertical $\{m = \infty\}$)

Draw the line using points. Always start drawing from the left most points. (How do you determine which is leftmost?)

Draw the first and last points manually (outside any loops)