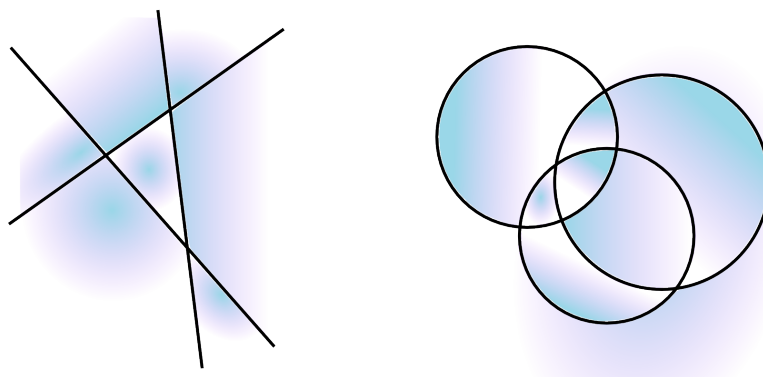


Math Challenge Problem

for late February

Lines + Circles = Regions



It is possible to arrange 3 lines in the plane to create 7 regions. You can arrange 3 circles to create 8 regions. In each case, this is the best you can do. What if you had more lines or circles?

The Challenge:

1. What is the maximum number of regions you can create with n lines?
2. What is the maximum number of regions you can create with n circles?
3. What is the maximum number of regions you can create using a combination of n lines and circles?

Submit solutions to Ross 2239G or to oscar.levin@unco.edu by *Wednesday, February 29*.
The best solution will be posted on the Math Challenge Problem webpage.

Look for a new Challenge Problem in March.