A Color-coded Illustration of how **PT_COMPARE** Determines the Quadrants for point **R**
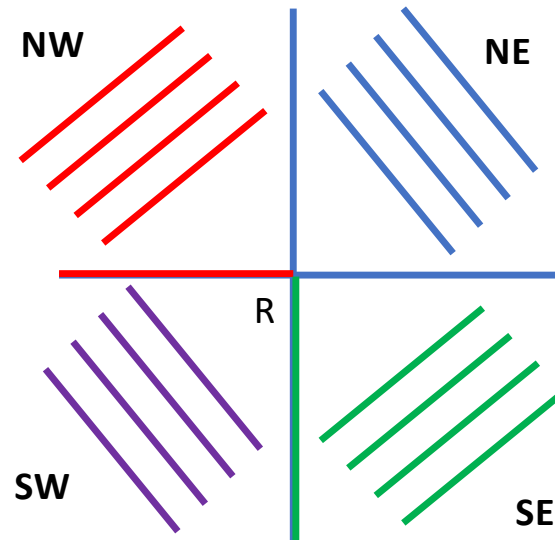
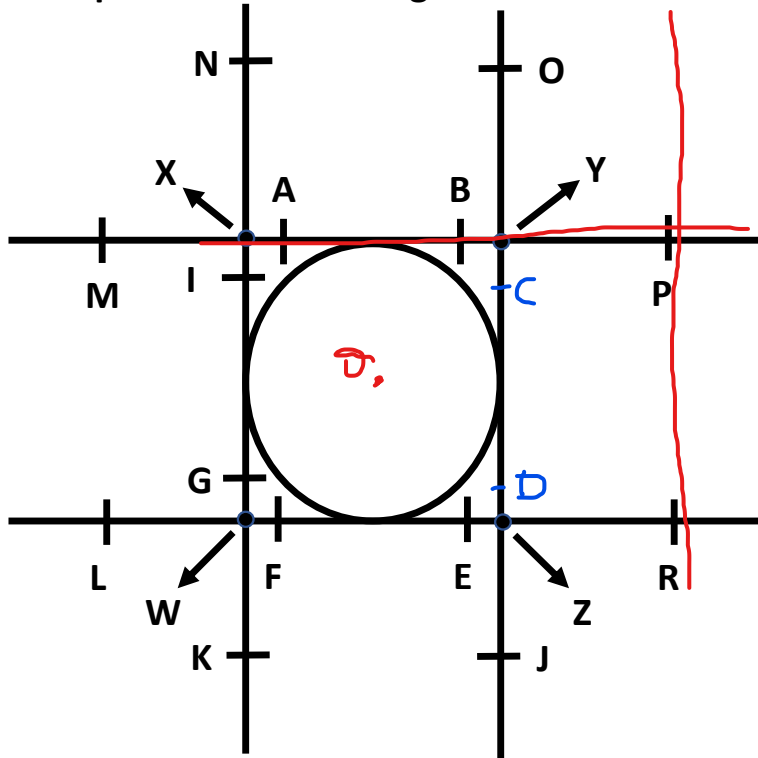# Corner Cases (on top of the ones given in Figure 2.17 of the assignment)

1) SE   2) SW   3) NE   4) NW

- Center of the circle represents the query point and the radius of the circle represents the query radius
- X, Y, Z, and W represent the intersection points, the others represent the line segments

- Some of the corner cases are given below as examples, the others need to be figured out by you.

if parent is on	quadrants to be visited
A ✓	SE, SW, NE
B ✓	SE, SW, NW
C ✓	NW, SW, SE
D ✓	NW, SW, NE
E ✓	NW, NE
F ✓	NW, NE
G ✓	NE, SE
I ✓	NE, SE
P ✓	SW, NW
R ✓	NW

if parent is on	quadrants to be visited
J	??? NE, NW
K	??? NE
L	??? NE
M	??? NE, SE
N	??? SE
O	??? SE, SW
X	??? SE, NE
Y	SW, NW, SE
Z	??? NE, NW
W	??? NE