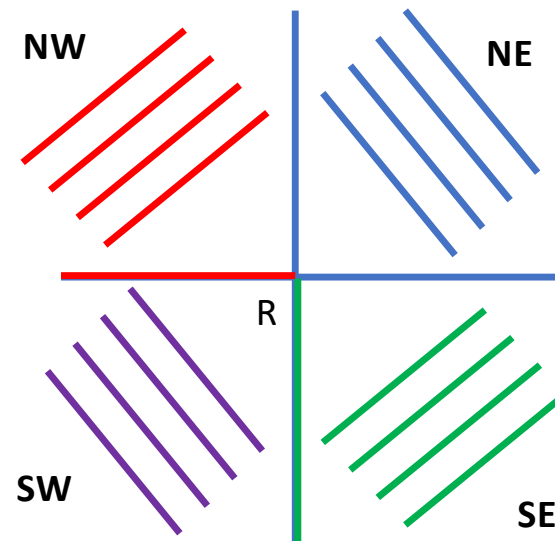
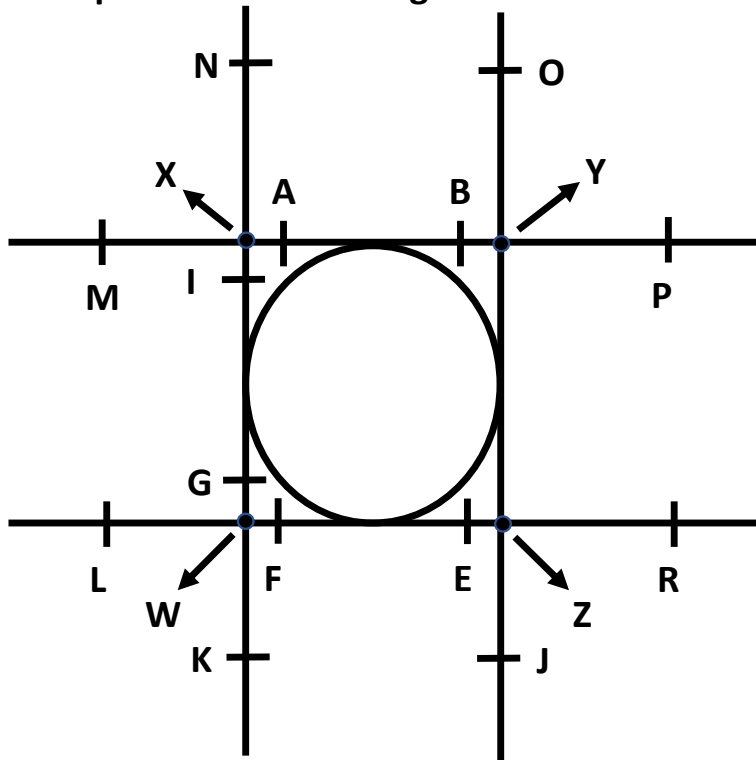


A Color-coded Illustration of how **PT_COMPARE** Determines the Quadrants for point **R**



Corner Cases (on top of the ones given in Figure 2.17 of the assignment)

- 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
- Points where the lines touch the circle need to be handled as specified in the assignment.



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	???
K	???
L	???
M	???
N	???
O	???
X	???
Y	SW, NW, SE
Z	???
W	???