Example.

1) Calculate pixel position of first octant with radius 10 and centered on origin.

$r = 10$

initial pixel plot = (0, 10)

$P_0 = 1 - r = 1 - 10 = -9$

K	P_K	(x_{plot}, y_{plot})	P_{K+1}
0	-9	(1, 10)	$= -9 + 2 + 1 = -6$
1	-6	(2, 10)	$= -6 + 4 + 1 = -1$
2	-1	(3, 10)	$= -1 + 6 + 1 = 6$
3	6	(4, 9)	$= 6 + 8 + 1 - 18 = -3$
4	-3	(5, 9)	$= -3 + 10 + 1 = 8$
5	8	(6, 8)	$= 8 + 12 + 1 - 16 = 5$
6	5	(7, 7)	

$= (x, y)$

2) $r = 5$, centered on origin

initial pixel to plot = (0, 5)

$P_0 = 1 - 5 = -4$

K	P_K	(x_{K+1}, y_{K+1})	P_{K+1}
0	-4	(1, 5)	$= -4 + 2 + 1 = -1$
1	-1	(2, 5)	$= -1 + 4 + 1 = 4$
2	4	(3, 4)	$= 4 + 6 + 1 - 8 = 3$
3	3	(4, 3)	

$= (x, y)$