Same number of depots:

Depots	Robots	log2(robots)	Tags	Arena	Foraging/robot
1	6	2.58	512	10X10	16.32
1	12	3.585	512	10X10	13.19
1	16	4	512	10X10	12.03
1	20	4.32	512	10X10	11.22
1	24	4.59	512	10X10	10.53

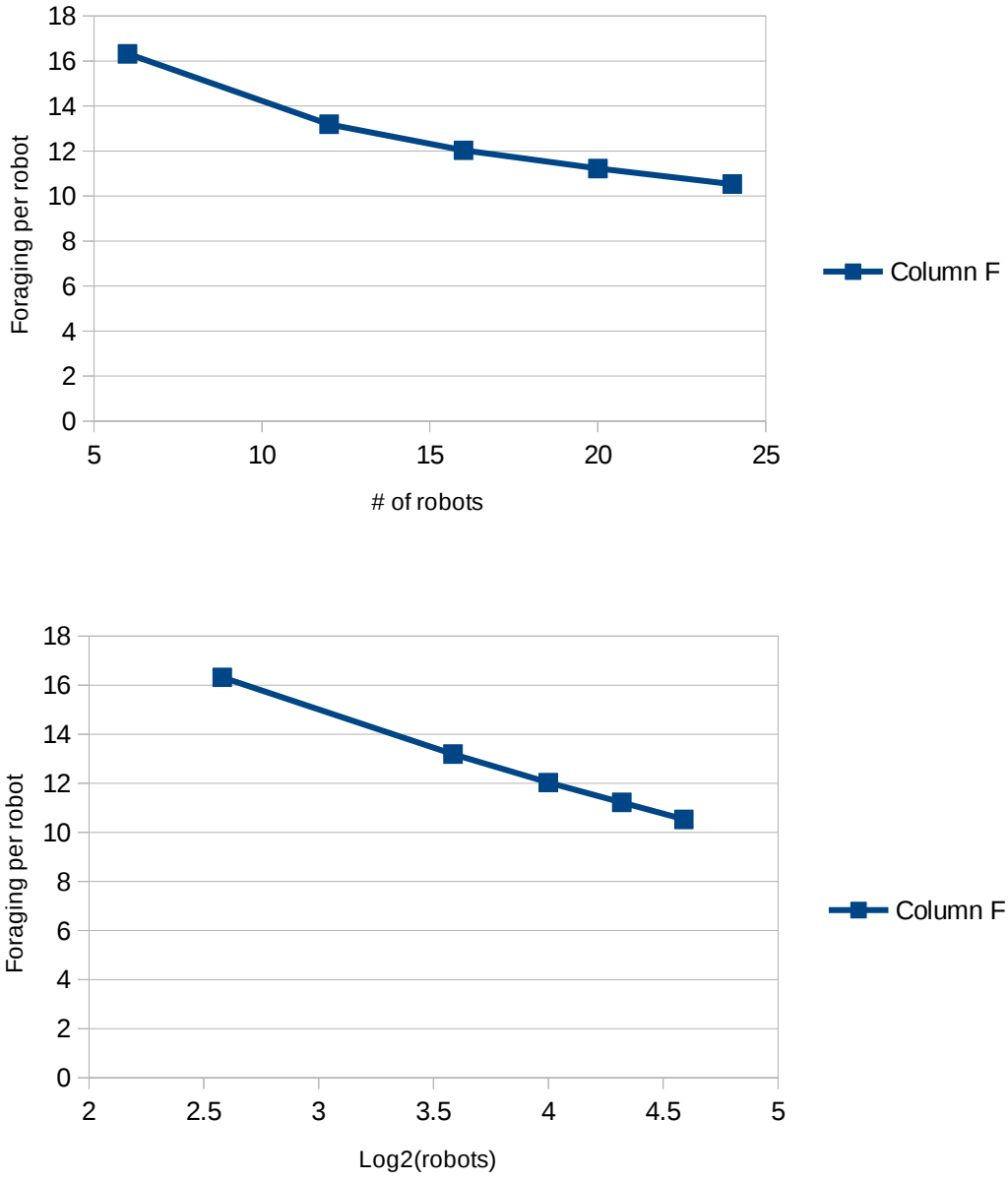
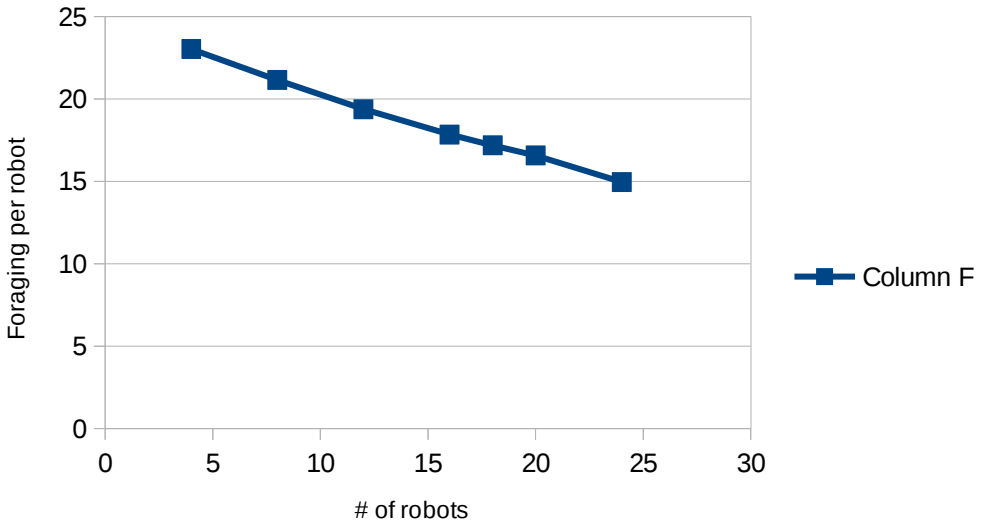


*Figure 1: F = -3*log2(R)+23.7*

Depots	Robots	log2(robots)	Tags	Arena	Foraging/robot
4	4	2	512	10X10	23.03
4	8	3	512	10X10	21.15
4	12	3.585	512	10X10	19.38
4	16	4	512	10X10	17.84
4	18	4.17	512	10X10	17.19
4	20	4.32	512	10X10	16.57
4	24	4.59	512	10X10	14.96



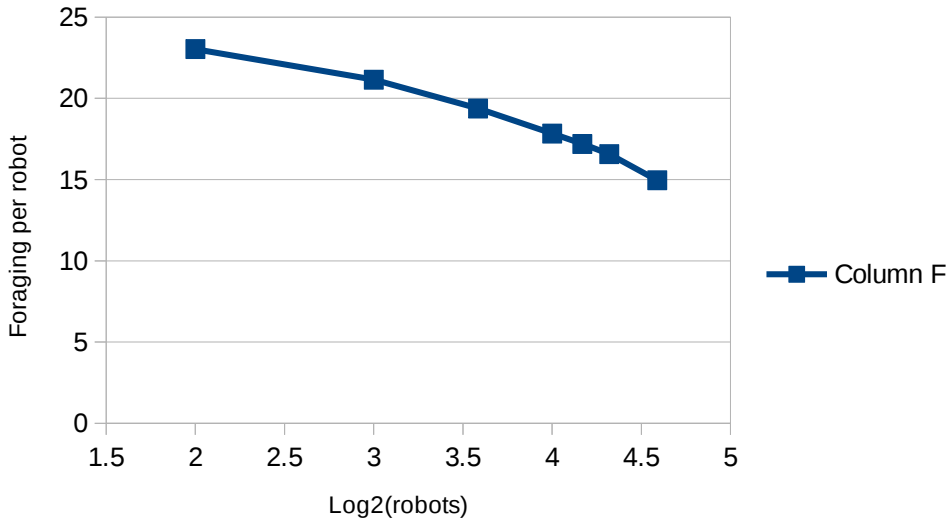
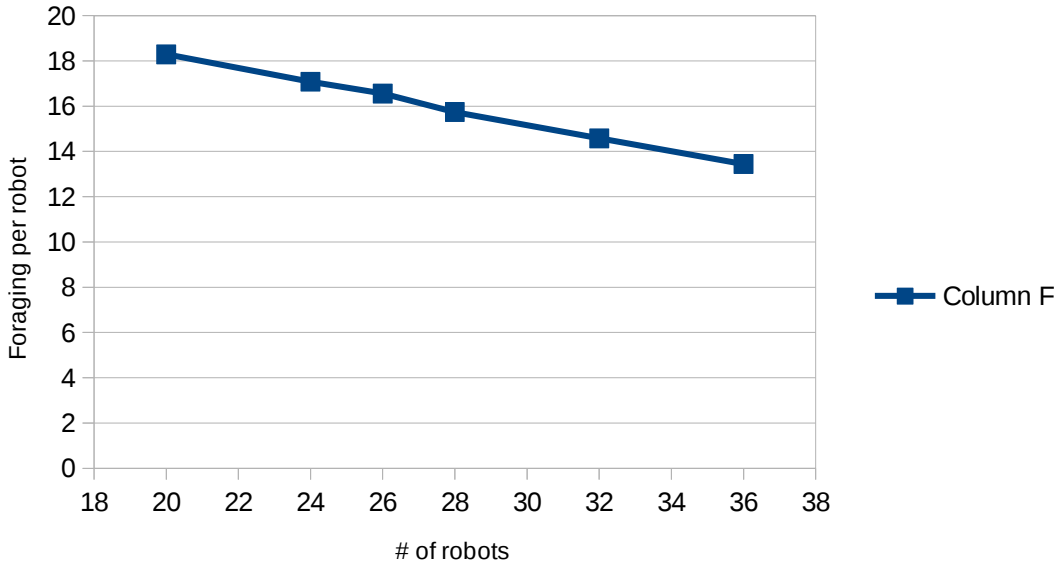


*Figure 2: F = -3*log2(R)+29.7;*

Depots	Robots	log2(robots)	Tags	Arena	Foraging/robot
8	20	4.32	512	10X10	18.29
8	24	4.59	512	10X10	17.08
8	26	4.7	512	10X10	16.56
8	28	4.8	512	10X10	15.74
8	32	5	512	10X10	14.58
8	36	5.17	512	10X10	13.44



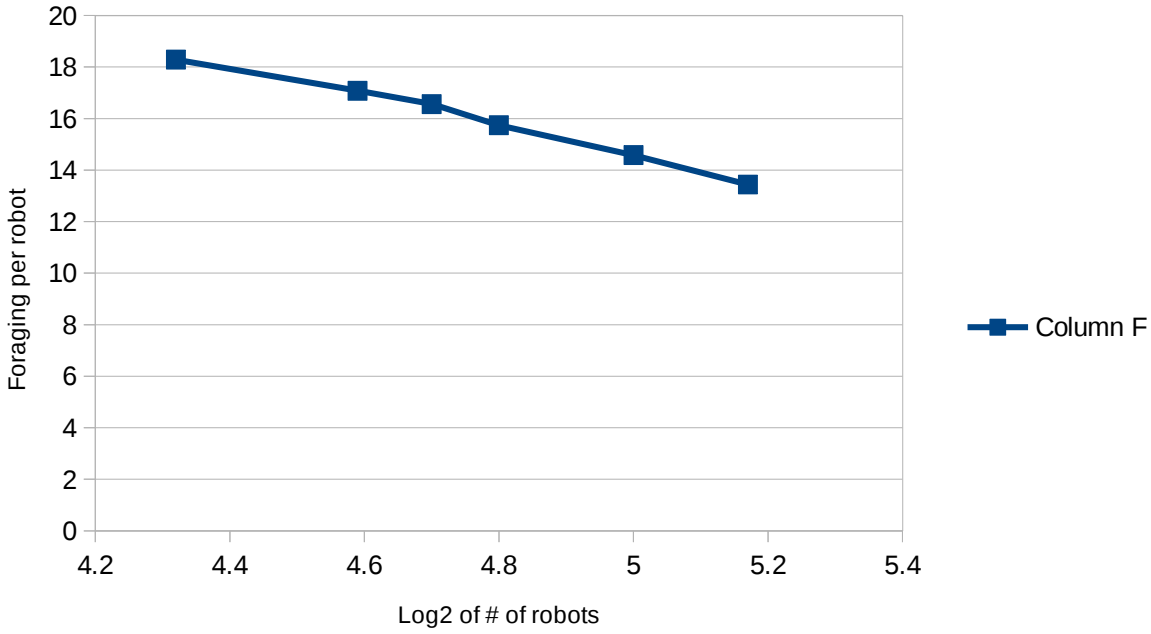


*Figure 3: F=-0.9*log2(R) + 18.28*

Depots	Robots	log2(robots)	Tags	Arena	Foraging/robot
16	16	4	512	10X10	21.24
16	20	4.32	512	10X10	19.43
16	24	4.59	512	10X10	17.83
16	28	4.8	512	10X10	16.48
16	32	5	512	10X10	14.97
16	48	5.58	512	10X10	10.59
16	64	6	512	10X10	7.98
16	80	6.32	512	10X10	6.38
16	96	6.58	512	10X10	5.32
16	112	6.81	512	10X10	4.56

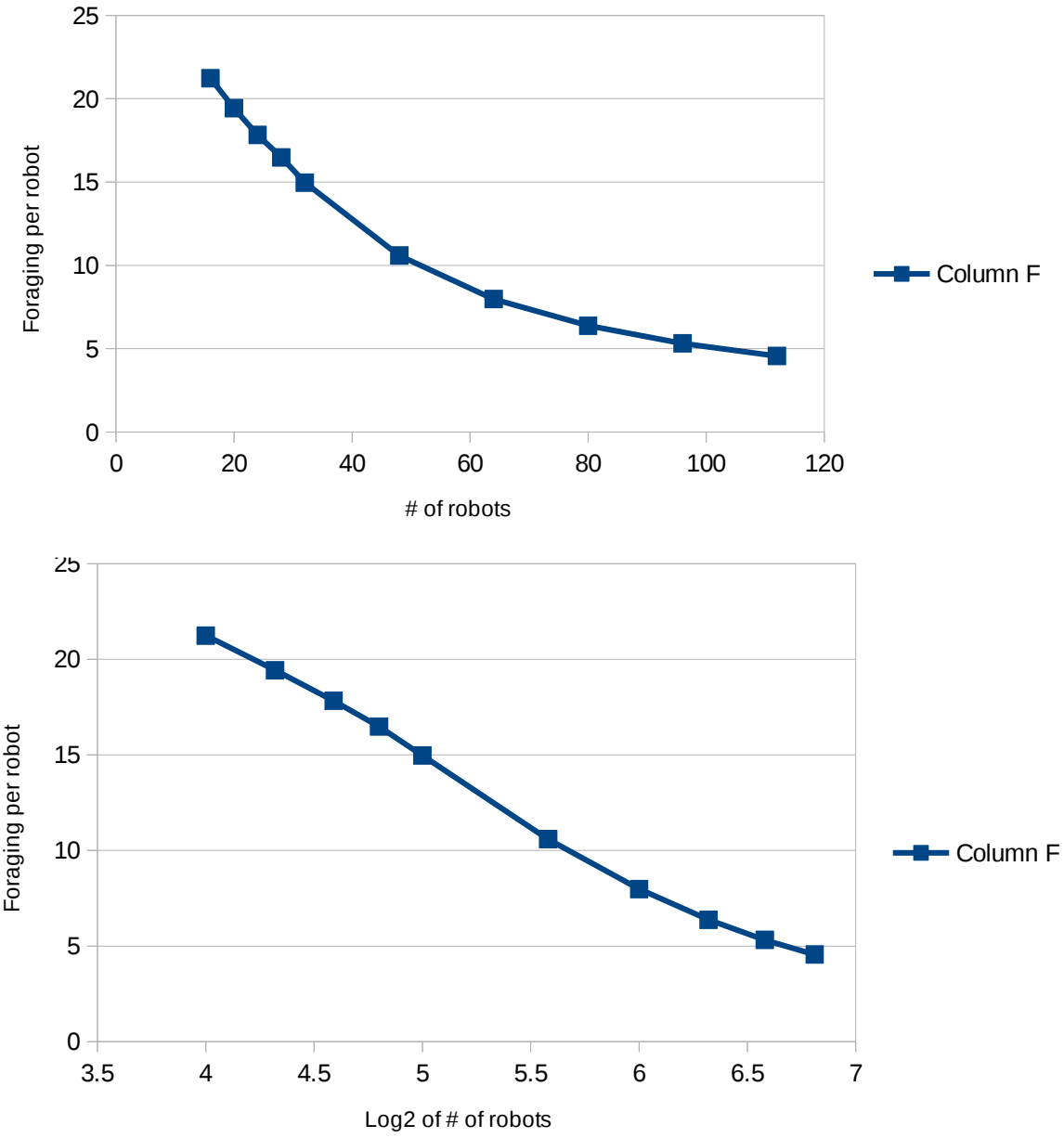


*Figure 4: F=-6.25*log2(R) + 46.24;*

R oo 2^(-F)

Same number of robots:

Depots	log2(depots)	Robots	Tags	Arena	Foraging/robot
1	0	24	512	10X10	10.52
2	1	24	512	10X10	12.76
4	2	24	512	10X10	14.96
6	2.58	24	512	10X10	15.79
8	3	24	512	10X10	17.08
10	3.32	24	512	10X10	17.68
12	3.59	24	512	10X10	17.87
14	3.81	24	512	10X10	17.5
16	4	24	512	10X10	17.83

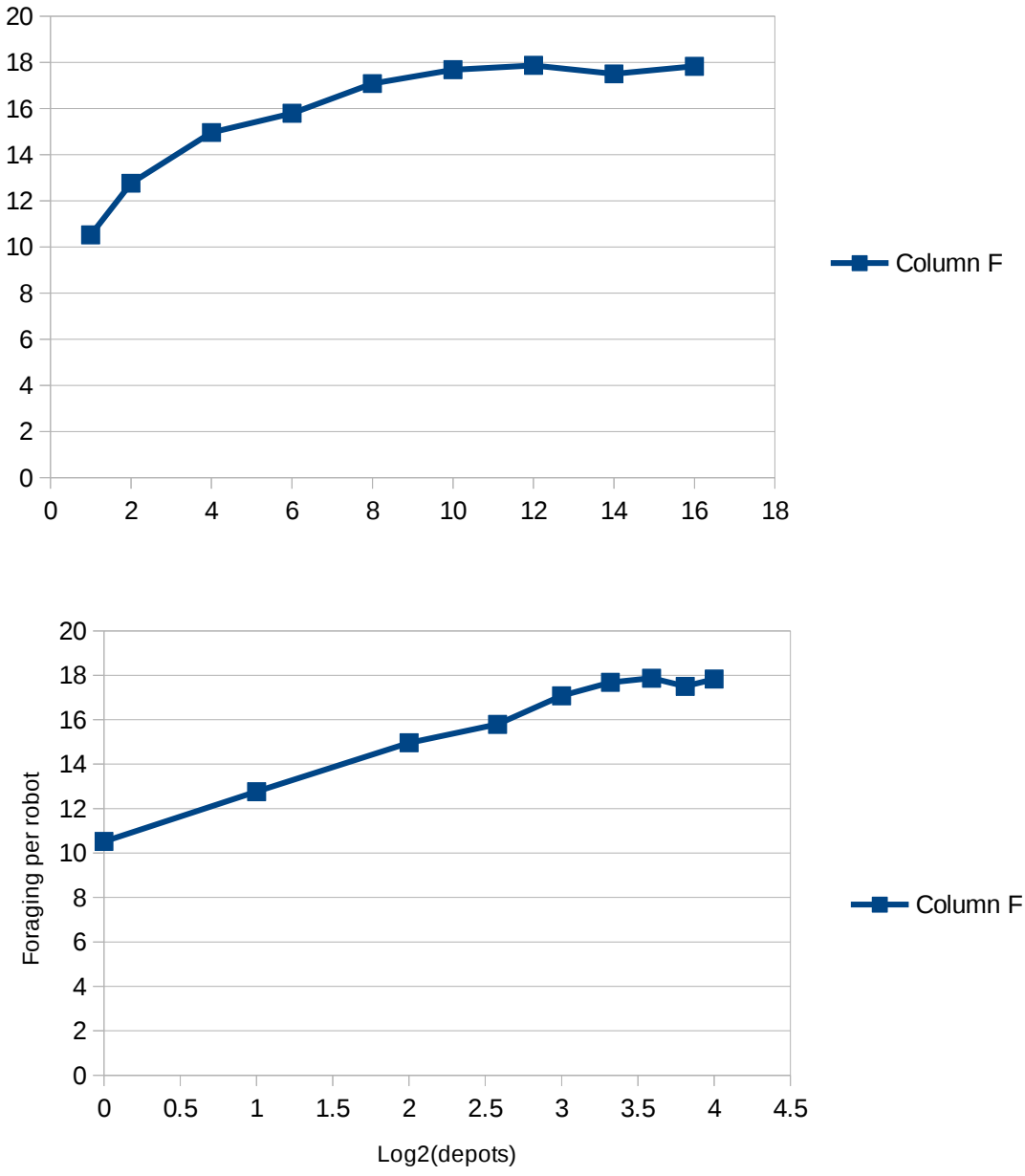


*Figure 5: F = 1.89*log2(R)+10.88; R oo 2^F;*

Same foraging rate:

Depots	log2(depots)	Robots	log2(robots)	Foraging rate
1	0	6	2.5849625	16.3
2	1	12	3.5849625	16.2
3	1.58	16	4	16.31
4	2	20	4.322	16.56
6	2.58	22	4.46	16.27
8	3	26	4.7	16.56
10	3.32	27	4.755	16.42
12	3.59	28	4.81	16.2
14	3.81	27	4.755	16.27
16	4	28	4.81	16.48

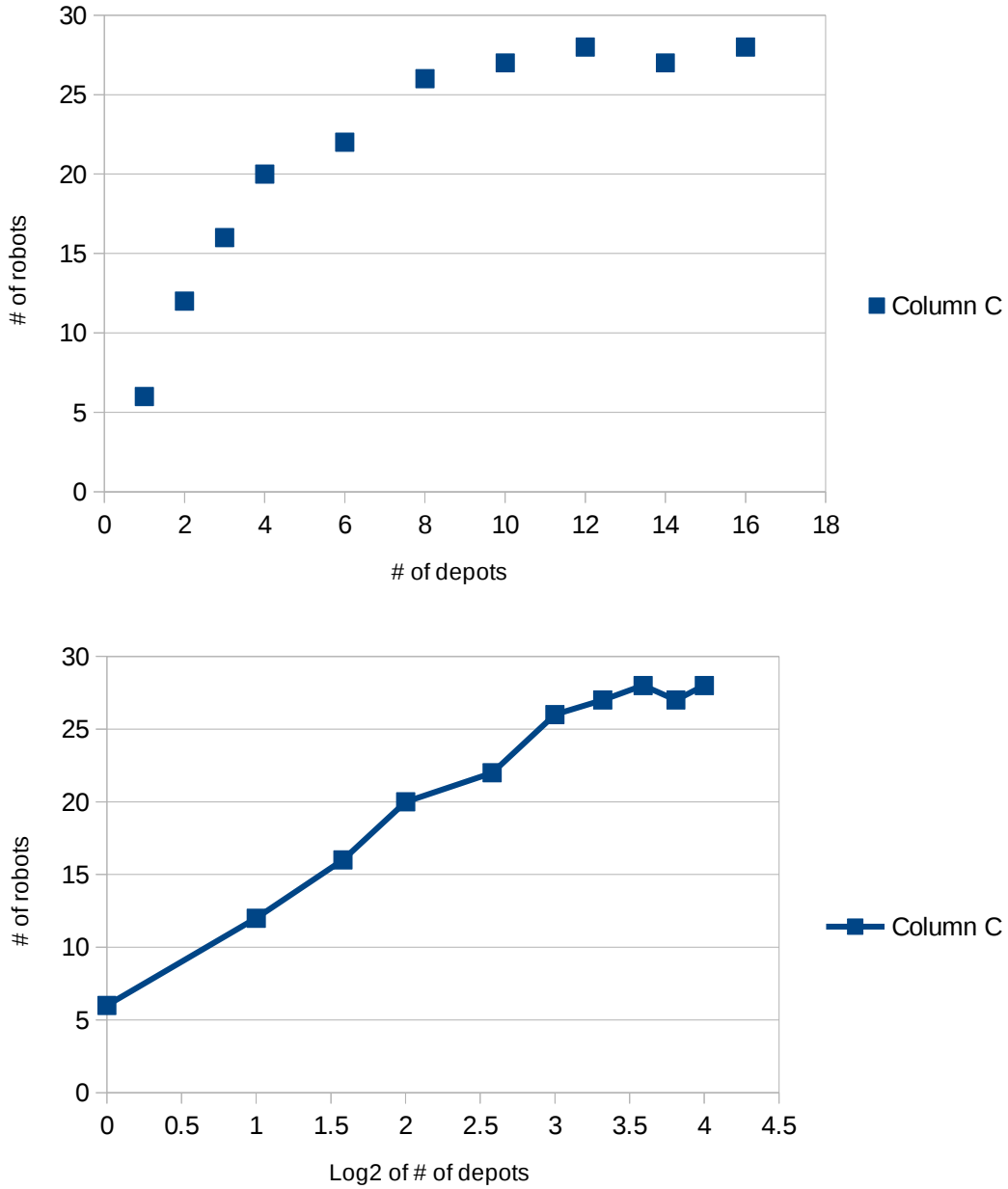


*Figure 6: R = 6.32*log2(D)+6.13*

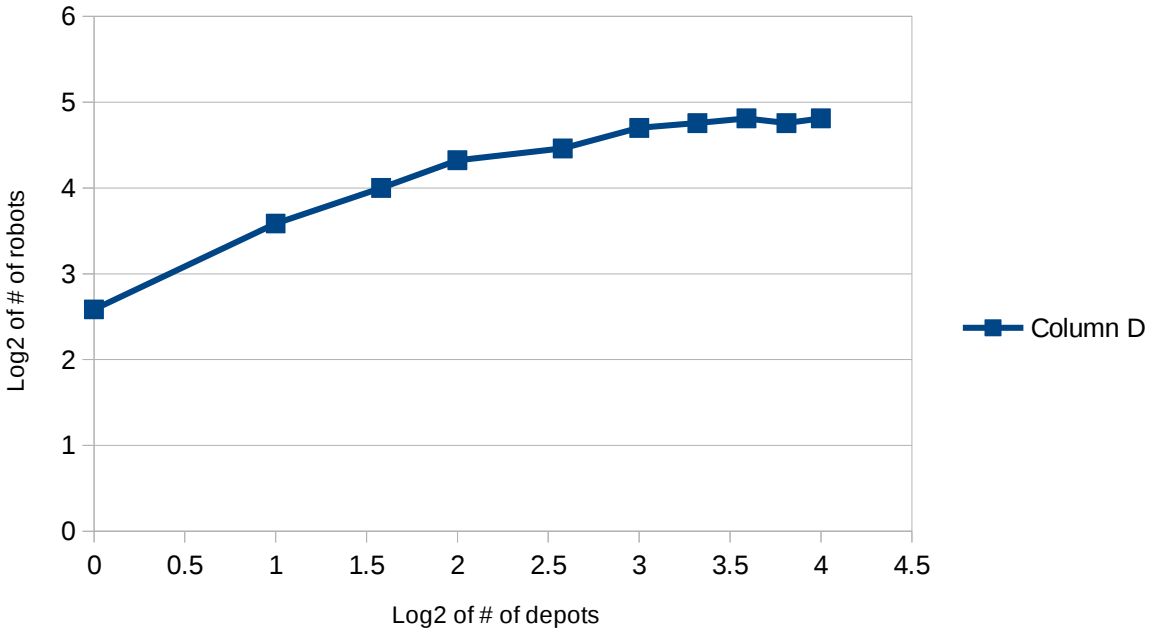


*Figure 7: Log2(R)= 0.6*log2(D)+2.88*

Depots	Robots	Tags	Arena size
1	6	512	10X10
4	24	2048	20X20
16	96	8192	40X40