Optimization in TA-w6

Lowest Cost Solution among groups $3650

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1			U: 0.6 C: 250	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.3 C: 400	U: 0.3 C: 450	U: 0.3 C: 500	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	
2	U: 0.9 C: 50		U: 0.4 C: 350	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0. C: 25					3 0	U: 0.2 C: 500	U: 0.2 C: 500						0
3	U: 0.9 C: 50			U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 250	U: 0.9 C: 100	U: 0.5 C: 350	U: 0.7 C: 150	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100						0
4	U: 0.8 C: 100	U: 0.7 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 250	U: 0.7 C: 150	U: 0.6 C: 200	U: 0.6 C: 200	U: 0.9 C: 100	U: 0.8 C: 100	U: 0.8 C: 150	U: 0.8 C: 100	U: 0.8 C: 100						0
5	U: 0.9 C: 50	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 200	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.9 C: 50	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100						0
6	U: 0.8 C: 100	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.8 C: 50	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.7 C: 150	U: 0.7 C: 200	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100						0
7	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.3 C: 400	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.7 C: 200						0
8	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.3 C: 400	U: 0.6 C: 300		U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500						0
9	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.9 C: 50	U: 0.9 C: 50				U: 0.5 C: 300	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
10	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.7 C: 150			U: 0.6 C: 200	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
11	U: 0.8 C: 100	U: 0.7 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 250	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.7 C: 150	
12	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 200	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.5 C: 400	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	
13	U: 0.5 C: 200	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.7 C: 100	U: 0.5 C: 250	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
14	U: 0.4 C: 250	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.4 C: 400	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
15	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 50	U: 0.5 C: 400	U: 0.6 C: 200	U: 0.7 C: 100	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
16	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 100	U: 0.8 C: 50	U: 0.7 C: 150	U: 0.6 C: 150	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.7 C: 150	U: 0.6 C: 250	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
17	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.7 C: 150	U: 0.8 C: 100	
18	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.7 C: 150	U: 0.6 C: 250	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.9 C: 50	U: 0.9 C: 50			
19	U: 0.5 C: 300	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.7 C: 200	U: 0.5 C: 250	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.7 C: 200	U: 0.9 C: 50	U: 0.9 C: 50		U: 0.7 C: 150	
20	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 200	U: 0.8 C: 50	U: 0.9 C: 50			U: 0.5 C: 300	
21																				

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			U: 0.6 C: 250	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.3 C: 400	U: 0.3 C: 450	U: 0.3 C: 500	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500
2	U: 0.9 C: 50		U: 0.4 C: 350	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.3 C: 400	U: 0.3 C: 450	U: 0.3 C: 500	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500
3	U: 0.9 C: 50			U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 250	U: 0.9 C: 100	U: 0.5 C: 350										U: 0.8 C: 100	U: 0.8 C: 100
4	U: 0.8 C: 100	U: 0.7 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 250	U: 0.7 C: 150	U: 0.6 C: 200	U: 0.6 C: 200									U: 0.8 C: 100	U: 0.8 C: 100
5	U: 0.9 C: 50	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 200	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.9 C: 50	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100
6	U: 0.8 C: 100	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.8 C: 50	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.7 C: 150	U: 0.7 C: 200	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.3 C: 500
7	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.3 C: 400	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.5 C: 300	U: 0.4 C: 400	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500
8	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.3 C: 400	U: 0.6 C: 300		U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500
9	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.9 C: 50	U: 0.9 C: 50				U: 0.5 C: 300	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500
10	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.7 C: 150			U: 0.6 C: 200	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500
11	U: 0.8 C: 100	U: 0.7 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 250	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.7 C: 150
12	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 200	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.5 C: 400	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300
13	U: 0.5 C: 200	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.7 C: 100	U: 0.5 C: 250	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300
14	U: 0.4 C: 250	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.4 C: 400	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300
15	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 50	U: 0.5 C: 400	U: 0.6 C: 200	U: 0.7 C: 100	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300
16	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 100	U: 0.8 C: 50	U: 0.7 C: 150	U: 0.6 C: 150	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.7 C: 150	U: 0.6 C: 250	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300
17	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.7 C: 150	U: 0.8 C: 100
18	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.7 C: 150	U: 0.6 C: 250	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.9 C: 50	U: 0.9 C: 50		
19	U: 0.5 C: 300	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.7 C: 200	U: 0.5 C: 250	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.7 C: 200	U: 0.9 C: 50	U: 0.9 C: 50		U: 0.7 C: 150
20	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 200	U: 0.8 C: 50	U: 0.9 C: 50			U: 0.5 C: 300
21																			

An illustration of Dykstra's Algorithm
(of which there are many variants)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1			U: 0.6 C: 250	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.3 C: 400	U: 0.3 C: 450	U: 0.3 C: 500	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	
2	U: 0.9 C: 50		U: 0.4 C: 350	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.3 C: 400	U: 0.3 C: 450	U: 0.3 C: 500	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	
3	U: 0.9 C: 50			U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 250	U: 0.9 C: 100	Shortest paths of cost 50				U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	
4	U: 0.8 C: 100	U: 0.7 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 250	U: 0.7 C: 150	U: 0.6 C: 200	U: 0.6 C: 200	U: 0.9 C: 100	U: 0.8 C: 100	U: 0.8 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	
5	U: 0.9 C: 50	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 200	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.9 C: 50	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	
6	U: 0.8 C: 100	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.8 C: 50	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.7 C: 150	U: 0.7 C: 200	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.3 C: 500	
7	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.3 C: 400	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.5 C: 300	U: 0.4 C: 400	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
8	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.3 C: 400	U: 0.6 C: 300		U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
9	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.9 C: 50	U: 0.9 C: 50				U: 0.5 C: 300	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
10	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.7 C: 150			U: 0.6 C: 200	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
11	U: 0.8 C: 100	U: 0.7 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 250	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.7 C: 150	
12	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 200	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.5 C: 400	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	
13	U: 0.5 C: 200	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.7 C: 100	U: 0.5 C: 250	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
14	U: 0.4 C: 250	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.4 C: 400	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
15	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 50	U: 0.5 C: 400	U: 0.6 C: 200	U: 0.7 C: 100	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
16	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 100	U: 0.8 C: 50	U: 0.7 C: 150	U: 0.6 C: 150	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.7 C: 150	U: 0.6 C: 250	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
17	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.7 C: 150	U: 0.8 C: 100	
18	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.7 C: 150	U: 0.6 C: 250	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.9 C: 50	U: 0.9 C: 50			
19	U: 0.5 C: 300	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.7 C: 200	U: 0.5 C: 250	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.7 C: 200	U: 0.9 C: 50	U: 0.9 C: 50		U: 0.7 C: 150	
20	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 200	U: 0.8 C: 50	U: 0.9 C: 50			U: 0.5 C: 300	
21																				

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1			U: 0.6 C: 250	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.3 C: 400	U: 0.3 C: 450	U: 0.3 C: 500	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	
2	U: 0.9 C: 50		U: 0.4 C: 350	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.3 C: 400	U: 0.3 C: 450	U: 0.3 C: 500	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	
3	U: 0.9 C: 50			U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 250	U: 0.9 C: 100								U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	
4	U: 0.8 C: 100	U: 0.7 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 250	U: 0.7 C: 150	U: 0.6 C: 200	U: 0.6 C: 200	U: 0.9 C: 100	U: 0.8 C: 100	U: 0.8 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	
5	U: 0.9 C: 50	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 200	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.9 C: 50	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	
6	U: 0.8 C: 100	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.8 C: 50	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.7 C: 150	U: 0.7 C: 200	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.3 C: 500	
7	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.3 C: 400	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.5 C: 300	U: 0.4 C: 400	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
8	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.3 C: 400	U: 0.6 C: 300		U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
9	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.9 C: 50	U: 0.9 C: 50				U: 0.5 C: 300	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
10	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.7 C: 150			U: 0.6 C: 200	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
11	U: 0.8 C: 100	U: 0.7 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 250	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.7 C: 150	
12	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 200	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.5 C: 400	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	
13	U: 0.5 C: 200	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.7 C: 100	U: 0.5 C: 250	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
14	U: 0.4 C: 250	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.4 C: 400	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
15	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 50	U: 0.5 C: 400	U: 0.6 C: 200	U: 0.7 C: 100	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
16	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 100	U: 0.8 C: 50	U: 0.7 C: 150	U: 0.6 C: 150	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.7 C: 150	U: 0.6 C: 250	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
17	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.7 C: 150	U: 0.8 C: 100	
18	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.7 C: 150	U: 0.6 C: 250	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.9 C: 50	U: 0.9 C: 50			
19	U: 0.5 C: 300	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.7 C: 200	U: 0.5 C: 250	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.7 C: 200	U: 0.9 C: 50	U: 0.9 C: 50		U: 0.7 C: 150	
20	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 200	U: 0.8 C: 50	U: 0.9 C: 50			U: 0.5 C: 300	
21																				

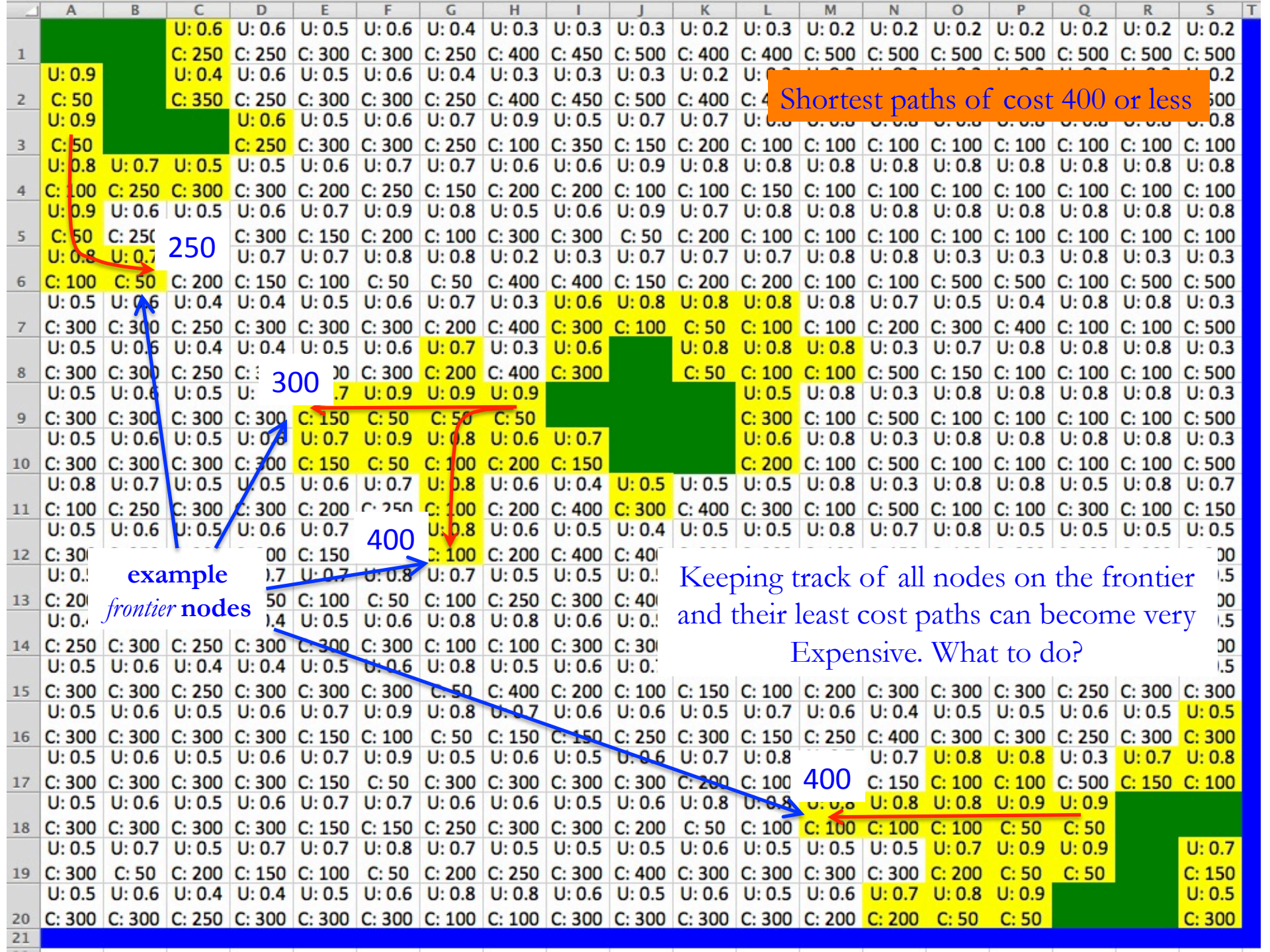
Shortest paths of cost 100 or less

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1			U: 0.6 C: 250	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.3 C: 400	U: 0.3 C: 450	U: 0.3 C: 500	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	
2	U: 0.9 C: 50		U: 0.4 C: 350	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.3 C: 400	U: 0.3 C: 450	U: 0.3 C: 500	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	
3	U: 0.9 C: 50			U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 250	U: 0.9 C: 100	Shortest paths of cost 150 or less							U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	
4	U: 0.8 C: 100	U: 0.7 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 250	U: 0.7 C: 150	U: 0.6 C: 200	U: 0.6 C: 200	U: 0.9 C: 100	U: 0.8 C: 100	U: 0.8 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	
5	U: 0.9 C: 50	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 200	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.9 C: 50	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	
6	U: 0.8 C: 100	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.8 C: 50	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.7 C: 150	U: 0.7 C: 200	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.3 C: 500	
7	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.3 C: 400	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.5 C: 300	U: 0.4 C: 400	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
8	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.3 C: 400	U: 0.6 C: 300		U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
9	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.9 C: 50	U: 0.9 C: 50				U: 0.5 C: 300	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
10	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.7 C: 150			U: 0.6 C: 200	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
11	U: 0.8 C: 100	U: 0.7 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 250	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.7 C: 150	
12	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 200	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.5 C: 400	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	
13	U: 0.5 C: 200	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.7 C: 100	U: 0.5 C: 250	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 250	U: 0.6 C: 300	U: 0.5 C: 300	
14	U: 0.4 C: 250	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.4 C: 400	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
15	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 50	U: 0.5 C: 400	U: 0.6 C: 200	U: 0.7 C: 100	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
16	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 100	U: 0.8 C: 50	U: 0.7 C: 150	U: 0.6 C: 150	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.7 C: 150	U: 0.6 C: 250	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
17	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.7 C: 150	U: 0.8 C: 100	
18	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.7 C: 150	U: 0.6 C: 250	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.9 C: 50	U: 0.9 C: 50			
19	U: 0.5 C: 300	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.7 C: 200	U: 0.5 C: 250	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.7 C: 200	U: 0.9 C: 50	U: 0.9 C: 50		U: 0.7 C: 150	
20	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 200	U: 0.8 C: 50	U: 0.9 C: 50			U: 0.5 C: 300	
21																				

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1			U: 0.6 C: 250	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.3 C: 400	U: 0.3 C: 450	U: 0.3 C: 500	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	
2	U: 0.9 C: 50		U: 0.4 C: 350	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.3 C: 400	U: 0.3 C: 450	U: 0.3 C: 500	U: 0.2 C: 400	U: C: 4							0.2 500	
3	U: 0.9 C: 50			U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 250	U: 0.9 C: 100	U: 0.5 C: 350	U: 0.7 C: 150	U: 0.7 C: 200	U: C: 100	C: 100	C: 100	C: 100	C: 100	C: 100	C: 100	0.8 C: 100	
4	U: 0.8 C: 100	U: 0.7 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 250	U: 0.7 C: 150	U: 0.6 C: 200	U: 0.6 C: 200	U: 0.9 C: 100	U: 0.8 C: 100	U: 0.8 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	
5	U: 0.9 C: 50	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 200	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.9 C: 50	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	
6	U: 0.8 C: 100	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.8 C: 50	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.7 C: 150	U: 0.7 C: 200	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.3 C: 500	
7	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.3 C: 400	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.5 C: 300	U: 0.4 C: 400	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
8	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.3 C: 400	U: 0.6 C: 300		U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
9	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.9 C: 50	U: 0.9 C: 50				U: 0.5 C: 300	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
10	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.7 C: 150			U: 0.6 C: 200	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
11	U: 0.8 C: 100	U: 0.7 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 250	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.7 C: 150	
12	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 200	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.5 C: 400	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	
13	U: 0.5 C: 200	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.7 C: 100	U: 0.5 C: 250	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
14	U: 0.4 C: 250	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.4 C: 400	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
15	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 50	U: 0.5 C: 400	U: 0.6 C: 200	U: 0.7 C: 100	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
16	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 100	U: 0.8 C: 50	U: 0.7 C: 150	U: 0.6 C: 150	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.7 C: 150	U: 0.6 C: 250	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
17	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.7 C: 150	U: 0.8 C: 100	
18	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.7 C: 150	U: 0.6 C: 250	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.9 C: 50	U: 0.9 C: 50				
19	U: 0.5 C: 300	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.7 C: 200	U: 0.5 C: 250	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.7 C: 200	U: 0.9 C: 50	U: 0.9 C: 50		U: 0.7 C: 150	
20	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 200	U: 0.8 C: 50	U: 0.9 C: 50			U: 0.5 C: 300	
21																				

Shortest paths of cost 400 or less

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1			U: 0.6 C: 250	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.3 C: 400	U: 0.3 C: 450	U: 0.3 C: 500	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	
2	U: 0.9 C: 50		U: 0.4 C: 350	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.3 C: 400	U: 0.3 C: 450	U: 0.3 C: 500	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	U: 0.2 C: 500	
3	U: 0.9 C: 50			U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 250	U: 0.9 C: 100	U: 0.5 C: 350	U: 0.7 C: 150	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	
4	U: 0.8 C: 100	U: 0.7 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 250	U: 0.7 C: 150	U: 0.6 C: 200	U: 0.6 C: 200	U: 0.9 C: 100	U: 0.8 C: 100	U: 0.8 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	
5	U: 0.9 C: 50	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 200	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.9 C: 50	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	
6	U: 0.8 C: 100	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.8 C: 50	U: 0.2 C: 400	U: 0.3 C: 400	U: 0.7 C: 150	U: 0.7 C: 200	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.3 C: 500	
7	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.3 C: 400	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.5 C: 300	U: 0.4 C: 400	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
8	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.3 C: 400	U: 0.6 C: 300		U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
9	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.9 C: 50	U: 0.9 C: 50				U: 0.5 C: 300	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
10	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.7 C: 150			U: 0.6 C: 200	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	
11	U: 0.8 C: 100	U: 0.7 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 250	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.7 C: 150	
12	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 200	U: 0.8 C: 100	U: 0.6 C: 200	U: 0.5 C: 400	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.8 C: 100	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	
13	U: 0.5 C: 200	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.7 C: 100	U: 0.5 C: 250	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
14	U: 0.4 C: 250	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.4 C: 400	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
15	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 50	U: 0.5 C: 400	U: 0.6 C: 200	U: 0.7 C: 100	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
16	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 100	U: 0.8 C: 50	U: 0.7 C: 150	U: 0.6 C: 150	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.7 C: 150	U: 0.6 C: 250	U: 0.4 C: 400	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.6 C: 250	U: 0.5 C: 300	U: 0.5 C: 300	
17	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.9 C: 50	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 200	U: 0.8 C: 100	U: 0.7 C: 200	U: 0.7 C: 150	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.3 C: 500	U: 0.7 C: 150	U: 0.8 C: 100	
18	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.7 C: 150	U: 0.7 C: 150	U: 0.6 C: 250	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.8 C: 50	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.9 C: 50	U: 0.9 C: 50			
19	U: 0.5 C: 300	U: 0.7 C: 50	U: 0.5 C: 200	U: 0.7 C: 150	U: 0.7 C: 100	U: 0.8 C: 50	U: 0.7 C: 200	U: 0.5 C: 250	U: 0.5 C: 300	U: 0.5 C: 400	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.5 C: 300	U: 0.7 C: 200	U: 0.9 C: 50	U: 0.9 C: 50		U: 0.7 C: 150	
20	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.4 C: 250	U: 0.4 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.8 C: 100	U: 0.8 C: 100	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 300	U: 0.5 C: 300	U: 0.6 C: 200	U: 0.7 C: 200	U: 0.8 C: 50	U: 0.9 C: 50			U: 0.5 C: 300	
21																				


Shortest paths of cost 400 or less
250
300
400
example
frontier nodes
400
Keeping track of all nodes on the frontier and their least cost paths can become very Expensive. What to do?

1. Keep all the nodes on the frontier (and their least cost paths) on a *priority queue*. There is nothing particularly AI about this, but an AI would use it.

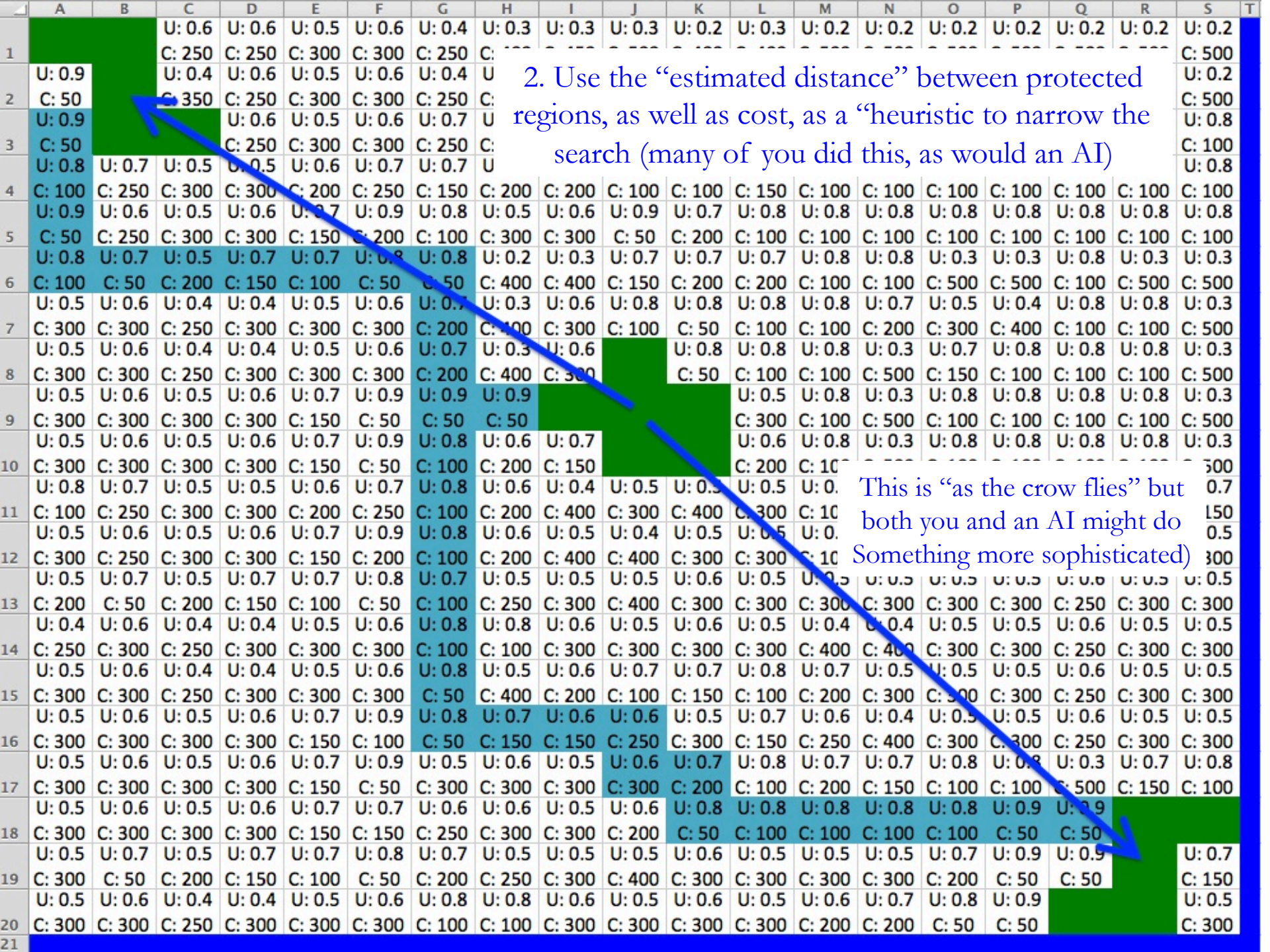
N1	5300
N2	5650
N3	5650
N4	6100
.	
.	
.	
Nm-1	25100
Nm	26500

A priority queue could be a perfectly sorted list – go down list one be one and maintain perfect sort with each new step

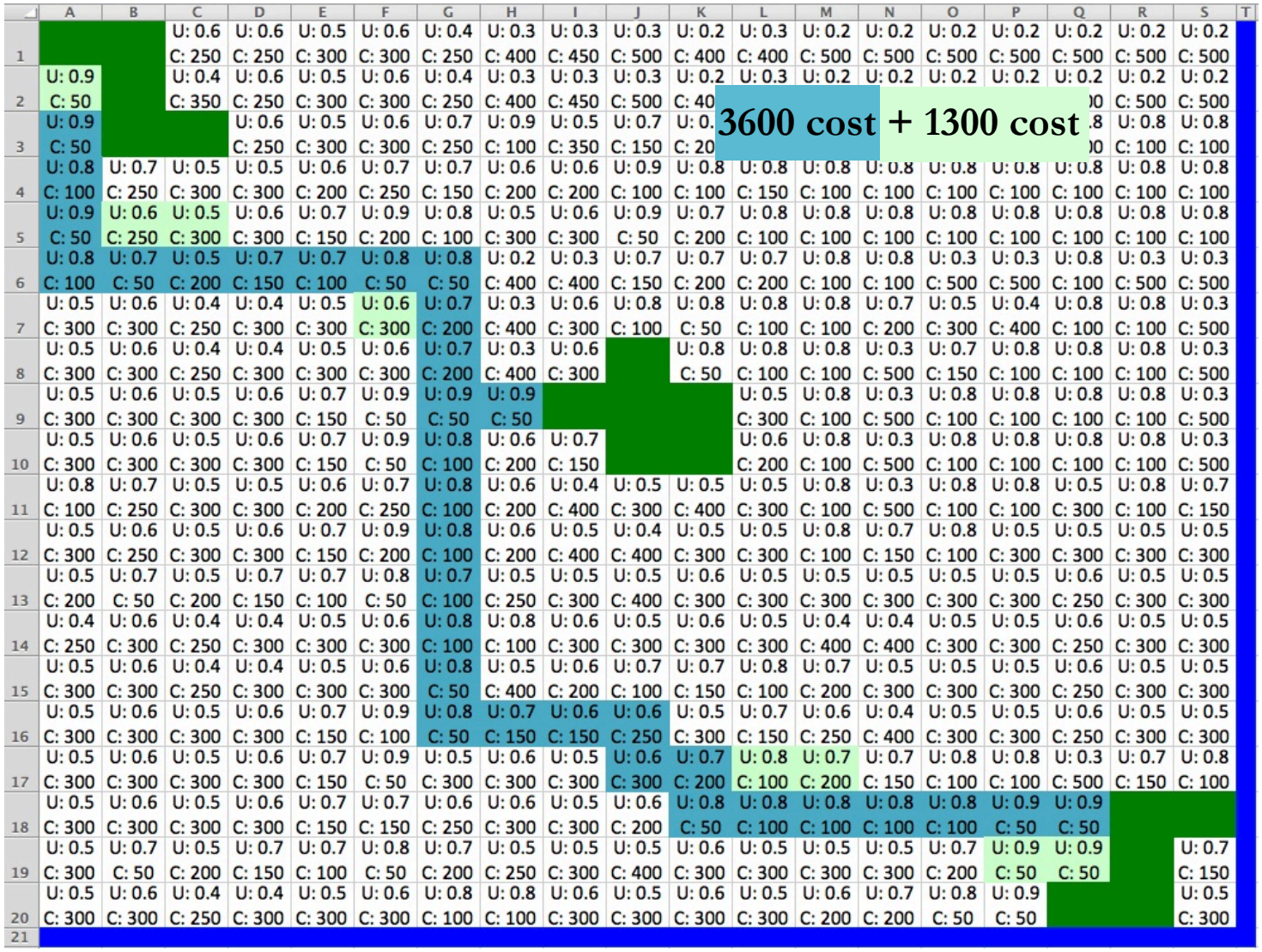
N1	5300
N2	5650
N3	5650
N7	7100
N4	6100
.	
.	
.	
Nm	26500
.	
.	
.	
Nm-29	22850

Much better: Only perfectly sort those "as needed" (e.g., top 3) like Google (e.g., top 20)

Most/all appeared to use a ***greedy approach*** and did not maintain the full frontier


2. Use the "estimated distance" between protected regions, as well as cost, as a "heuristic to narrow the search (many of you did this, as would an AI)
This is "as the crow flies" but both you and an AI might do Something more sophisticated)

Some of you sought to minimize cost, and then add to (or otherwise tweak) solution to maximize utility, while staying under budget



You can invert the strategy and first maximize utility and then tweak for cost

Other comments

- All of you defined the "utility" of the corridor as the sum of utilities of the individual parcels
    - Should the "weakest link" (lowest utility, bottleneck for species movement be a factor?)
- Should the utility of a cell be a function of the path that it lies along (i.e., change as the algorithm is in the process of searching for solutions)?
- Robust optimization
- Optimizing (maximizing) "bang for the buck" (the utility/cost ratio)