

Table 1: Nash's Bargaining Example

Bill's goods	Utility to Bill	Utility to Jack
book (B1)	2	4
whip (B2)	2	2
ball (B3)	2	1
bat (B4)	2	2
box (B5)	4	1
Jack's goods		
pen (J1)	10	1
toy (J2)	4	1
knife (J3)	6	2
hat (J4)	2	2

Bill gives Jack: book, whip, ball, bat

Jack gives Bill: pen, toy, knife

Table 2: Outcomes of Barter

No.	Bill's goods	Jack's goods	Bill's trade balance	Δu_B	Δu_J	Ω
1	J1, B3	B1, B2, B4, B5, J2, J3, J4	B1 (- 2), B2 (- 2), B4 (- 2), B5 (- 4), J1 (+ 10)	0	8	0
2	J1, J2, B5	B1, B2, B3, B4, J3, J4	B1 (- 2), B2 (- 2), B3 (- 2), B4 (- 2), J1 (+ 10), J2 (+ 4)	6	7	42
3	J1, J2, B3, B5	B1, B2, B4, J3, J4	B1 (- 2), B2 (- 2), B4 (- 2), J1 (+ 10), J2 (+ 4)	8	6	48
4	J1, J2, J3, B5	B1, B2, B3, B4, J4	B1 (- 2), B2 (- 2), B3 (- 2), B4 (- 2), J1 (+ 10), J2 (+ 4), J3 (+ 6)	12	5	60
5	J1, J2, J3, B3, B5	B1, B2, B4, J4	B1 (- 2), B2 (- 2), B4 (- 2), J1 (+ 10), J2 (+ 4), J3 (+ 6)	14	4	56
6	J1, J2, J3, B2, B5	B1, B3, B4, J4	B1 (- 2), B3 (- 2), B4 (- 2), J1 (+ 10), J2 (+ 4), J3 (+ 6)	14	3	42
7	J1, J2, J3, B2, B3, B5	B1, B4, J4	B1 (- 2), B4 (- 2), J1 (+ 10), J2 (+ 4), J3 (+ 6)	16	2	32
8	J1, J2, J3, B2, B4, B5	B1, B3, J4	B1 (- 2), B3 (- 2), J1 (+ 10), J2 (+ 4), J3 (+ 6)	16	1	16
9	J1, J2, J3, B2, B3, B4, B5	B1, J4	B1 (- 2), J1 (+ 10), J2 (+ 4), J3 (+ 6)	18	0	0

B1: book, B2: whip, B3: ball, B4: bat, B5: box

J1: pen, J2: toy, J3: knife, J4: hat

Table 3: Gains and Losses of Barter

		Utility to Bill					
		Book 2	Whip 2	Ball 2	Bat 2	Box 4	
Utility to Jack	Pen 1	8 11 3	8 9 1	8 8 0	8 9 1	6 6 0	10
	Toy 1	2 5 3	2 3 1	2 2 0	2 3 1	0 0 0	4
	Knife 2	4 6 2	4 4 0	4 3 -1	4 4 0	2 1 -1	6
	Hat 2	0 2 2	0 0 0	0 -1 -1	0 0 0	-2 -3 -1	2
		4	2	1	2	1	

Figure 1: The Utility Space

