

Spieltheorie - Blatt 5

1.

a) $|S_1| = 2 \cdot 2 = 4$ $S_1 = \{(a_1, b_1), (a_1, b_2), (a_2, b_1), (a_2, b_2)\}$

$|S_2| = 2 \cdot 2 = 4$ $S_2 = \{(x_1, y_1), (x_1, y_2), (x_2, y_1), (x_2, y_2)\}$

b) $\rightarrow 4 \times 4$ -Matrix

	(x_1, y_1)	(x_1, y_2)	(x_2, y_1)	(x_2, y_2)
(a_1, b_1)	4,0	4,0	4,0	4,0
(a_1, b_2)	4,0	4,0	4,0	4,0
(a_2, b_1)	5,1	2,3	1,1	1,1
(a_2, b_2)	0,2	0,2	5,6	2,3

c)

N-66W 1: $\{(a_1, b_1), (x_1, y_1)\}$

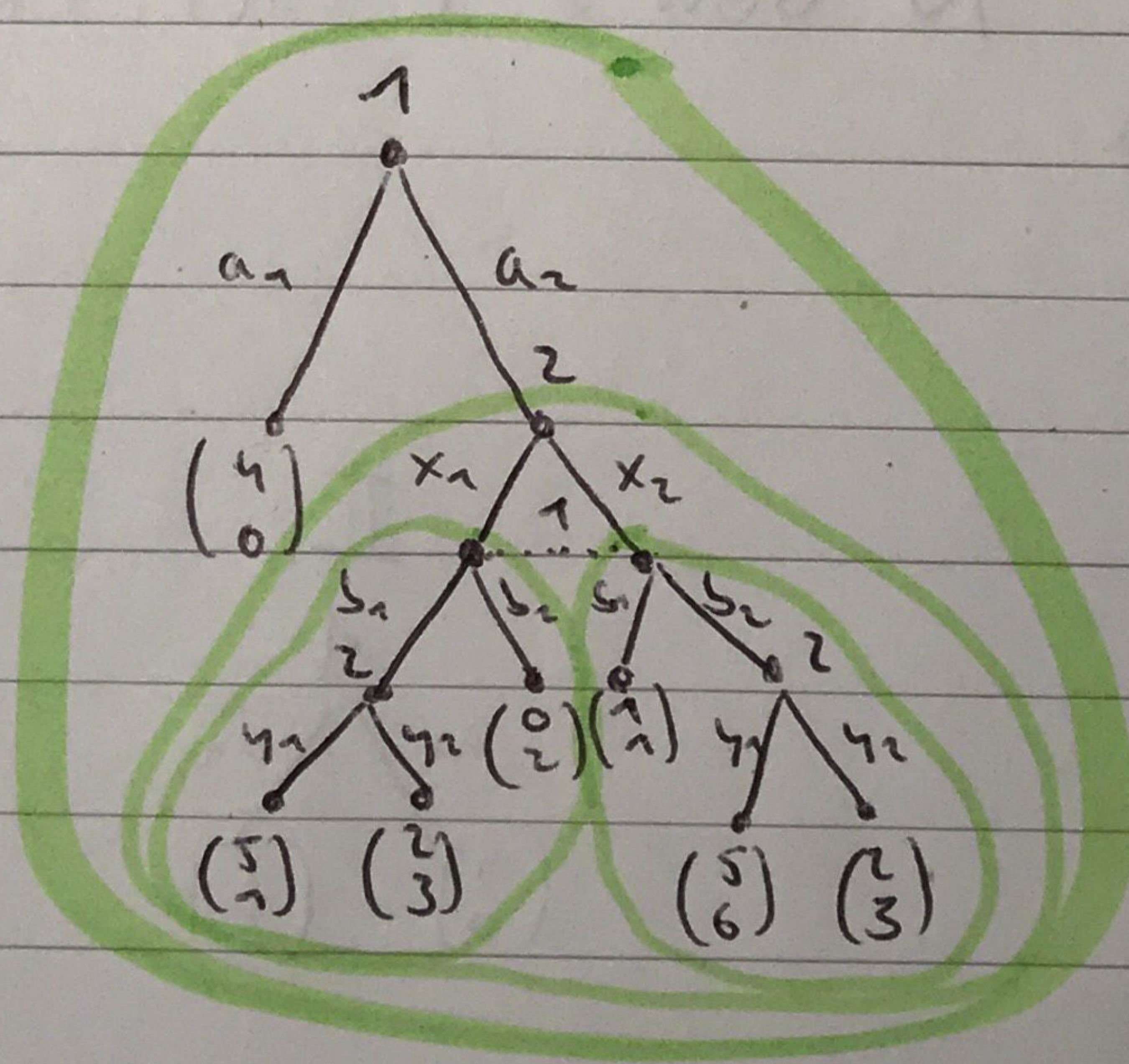
N-66W 2: $\{(a_1, b_2), (x_1, y_2)\}$

N-66W 3: $\{(a_1, b_1), (x_2, y_2)\}$

N-66W 4: $\{(a_1, b_2), (x_2, y_2)\}$

N-66W 5: $\{(a_2, b_1), (x_2, y_1)\}$

d)

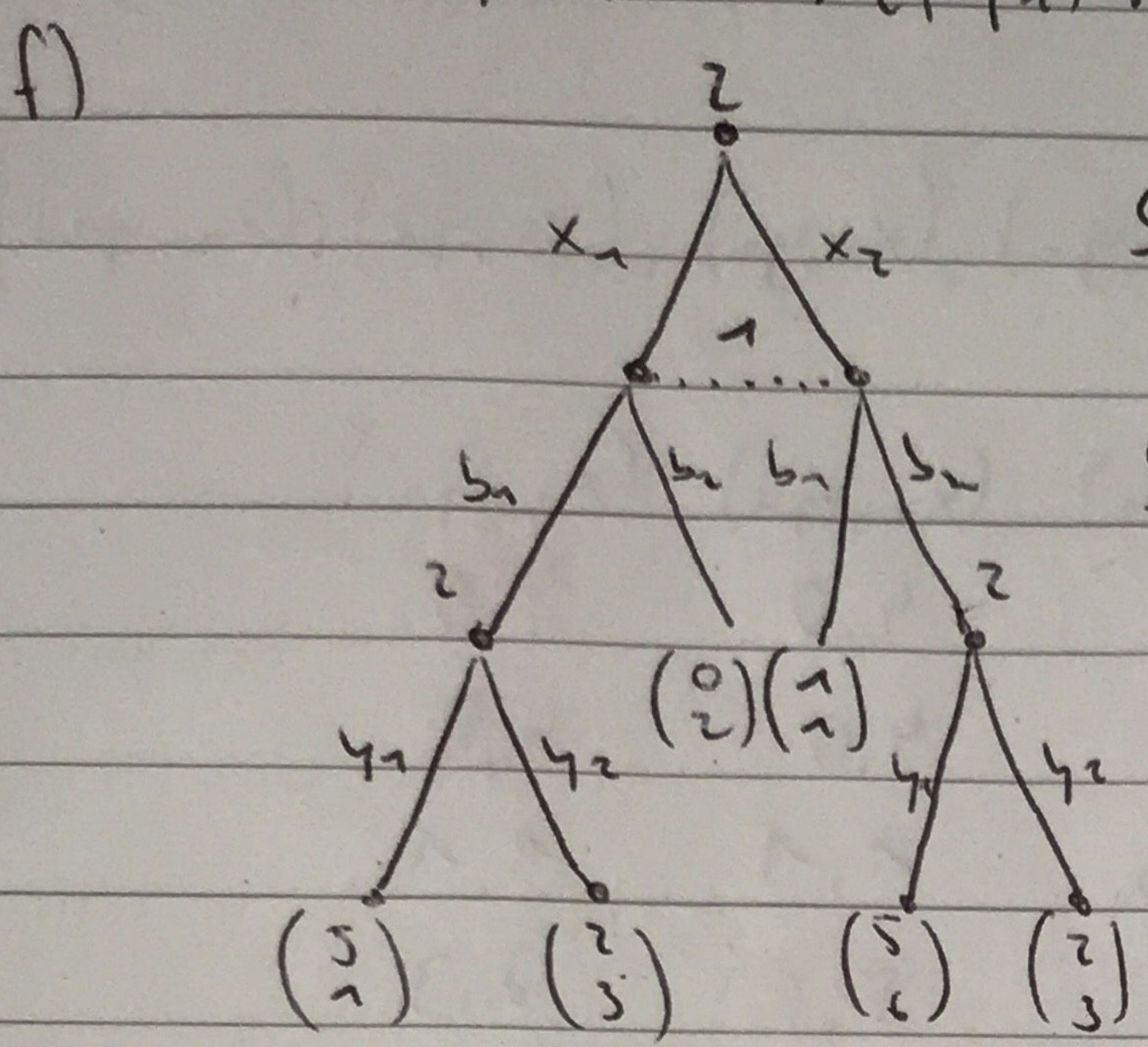


\rightarrow 4 Teilspiele

(davon 3 echte Teilspiele)

e) für $(a_2, b_2) : (x_2, y_2)$ ist b. A.
 für $(a_2, b_2) : (x_2, y_2)$ ist b. A.

$(|S_2| = 2 \cdot 2 = 4)$



$S_2 = \{ (x_1, y_1); (x_2, y_2); (x_2, y_1); (x_2, y_2) \}$

$S_1 = \{ b_1; b_2 \} \Rightarrow |S_1| = 2$

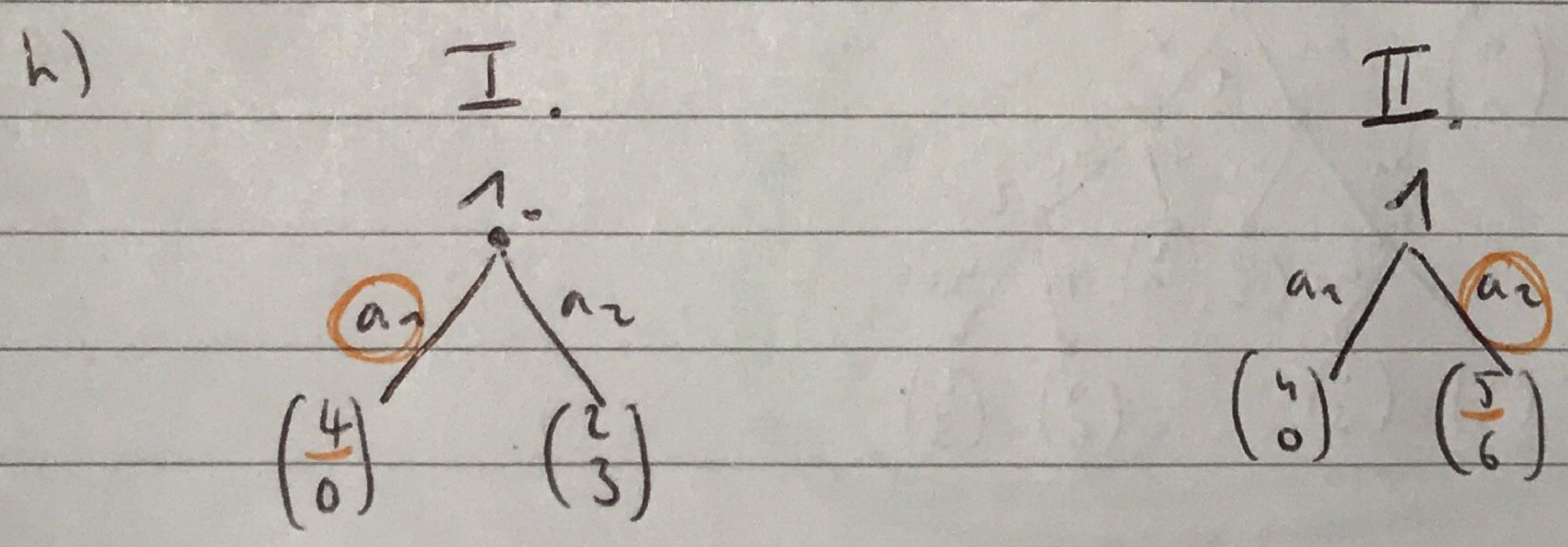
$\Rightarrow 2 \times 4$ - Matrix

	(x_1, y_1)	(x_1, y_2)	(x_2, y_1)	(x_2, y_2)
(b_1)	5, 1	2, 3	1, 1	1, 1
(b_2)	0, 2	0, 2	5, 6	2, 3

keine Nash-GGW: N-GGW 1: $\{ (b_1), (x_2, y_2) \}$
 N-GGW 2: $\{ (b_2), (x_2, y_1) \}$

N-GGW 1 N-GGW 2

g) $(2, 3); (5, 6)$



1. TSP-GGW: $\{ (a_1, x_2, y_2) \}$

2. " : $\{ (a_1, x_2, y_2) \}$

3. " : $\{ (a_2, x_2, y_1) \}$

4. " : $\{ (a_2, x_2, y_2) \}$

5. TSP-GGW: $\{ (a_2, b_1), (x_2, y_1) \}$