

③ Skri-Spiel (mit Zusatzregel)

$$A = \begin{pmatrix} 1 & -1 & -2 \\ -1 & 1 & 1 \\ 2 & -1 & 0 \end{pmatrix}$$

1.  $\lambda = 3$

IV	$\tilde{q}_1$	$\tilde{q}_2$	$\tilde{q}_3$	r.S
$y_1$	4	2	1	1
$y_2$	2	4	4	1
$y_3$	5	2	3	1
$z$	-1	-1	-1	0

IV	$y_3$	$\tilde{q}_2$	$\tilde{q}_3$	r.S
$y_1$	$-\frac{4}{5}$	$\frac{2}{5}$	$-\frac{7}{5}$	$\frac{1}{5}$
$y_2$	$-\frac{2}{5}$	16/5	$\frac{14}{5}$	$\frac{3}{5}$
$\tilde{q}_1$	$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{1}{5}$
$z$	$\frac{1}{5}$	$-\frac{3}{5}$	$-\frac{2}{5}$	$\frac{1}{5}$

	$y_3$	$y_2$	$\tilde{q}_3$	r.S
$y_1$	⊗	$-\frac{1}{8}$	⊗	$\frac{1}{8}$
$\tilde{q}_2$	$-\frac{1}{8}$	$\frac{5}{16}$	$\frac{7}{8}$	$\frac{3}{16}$
$\tilde{q}_1$	⊗	$-\frac{1}{8}$	⊗	$\frac{1}{8}$
$z$	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{8}$	$\frac{25}{80} = \frac{5}{16}$

$\Rightarrow \tilde{q}^* = \left(\frac{1}{8}, \frac{3}{16}, 0\right)$

$\tilde{p}^* = \left(0, \frac{3}{16}, \frac{1}{8}\right)$

$z^* = \frac{5}{16}$

3.  $q^* = \frac{1}{z^*} \cdot \tilde{q}^* = \frac{16}{5} \cdot \left(\frac{1}{8}, \frac{3}{16}, 0\right) = \left(\frac{2}{5}, \frac{3}{5}, 0\right)$

$p^* = \frac{1}{z^*} \cdot \tilde{p}^* = \frac{16}{5} \cdot \left(0, \frac{3}{16}, \frac{1}{8}\right) = \left(0, \frac{3}{5}, \frac{2}{5}\right)$

$\square^* = \frac{1}{z^*} - \lambda = \frac{16}{5} - 3 = \frac{1}{5} \Rightarrow$  Spiel ist nicht fair.