

Finding the Nash equilibria of the following game:

	L	C	R
T	0 <u>2</u>	<u>2</u> 0	0 0
M	<u>2</u> 0	0 <u>2</u>	0 0
B	0 0	0 0	<u>1</u> <u>1</u>

- Best responses are underlined; hence (B, R) is the only pure strategy Nash equilibrium.
- There are no equilibria in which one player playing a pure strategy can induce the other to mix, because all best-responses are strict.

• Mixing T and M? Best-responding by column  $\Rightarrow q_R = 0$ .

For Row to be best responding, we must have  $2q_C = 2q_L \iff q_C = q_L = \frac{1}{2}$

By symmetry,  $((\frac{1}{2}, \frac{1}{2}, 0), (\frac{1}{2}, \frac{1}{2}, 0))$  is a mixed-strategy NE.

- Mixing T and B?
- Mixing M and B?
- Mixing T, M and B?

} I'll leave these to you. ...