

□ (adverse) demand function: $P = a - b(q_1 + q_2)$

□ cost function: $C_1(q_1) = c_1q_1$ and $C_2(q_2) = c_2q_2$ where $c_1 \leq c_2$ without loss of generality

producer 1 \ producer 2	Cournot $q_2 = \frac{a + c_1 - 2c_2}{3b}$	Stackelberg Leader $q_2 = \frac{a + c_1 - 2c_2}{2b}$	Stackelberg Follower $q_2 = \frac{a + 2c_1 - 3c_2}{4b}$
Cournot $q_1 = \frac{a + c_2 - 2c_1}{3b}$	$\Pi_1 = \frac{(a + c_2 - 2c_1)^2}{9b} (*)$ $\Pi_2 = \frac{(a + c_1 - 2c_2)^2}{9b} (*)$ (fulfill expectation)	$\Pi_1 = \frac{(a + c_2 - 2c_1)(a + 4c_2 - 5c_1)}{18b}$ $\Pi_2 = \frac{(a + c_1 - 2c_2)^2}{12b}$ (not fulfill expectation)	$\Pi_1 = \frac{5(a + c_2 - 2c_1)^2}{36b} (*)$ $\Pi_2 = \frac{(a + 2c_1 - 3c_2)(5a + 2c_1 - 7c_2)}{48b}$ (not fulfill expectation)
Stackelberg Leader $q_1 = \frac{a + c_2 - 2c_1}{2b}$	$\Pi_1 = \frac{(a + c_2 - 2c_1)^2}{12b}$ $\Pi_2 = \frac{(a + c_1 - 2c_2)(a + 4c_1 - 5c_2)}{18b}$ (not fulfill expectation)	$\Pi_1 = \frac{(a + c_2 - 2c_1)(c_2 - c_1)}{4b}$ $\Pi_2 = \frac{(a + c_1 - 2c_2)(c_1 - c_2)}{4b}$ (not fulfill expectation)	$\Pi_1 = \frac{(a + c_2 - 2c_1)^2}{8b}$ $\Pi_2 = \frac{(a + 2c_1 - 3c_2)^2}{16b} (*)$ (fulfill expectation)
Stackelberg Follower $q_1 = \frac{a + 2c_2 - 3c_1}{4b}$	$\Pi_1 = \frac{(a + 2c_2 - 3c_1)(5a + 2c_2 - 7c_1)}{48b}$ $\Pi_2 = \frac{5(a + c_1 - 2c_2)^2}{36b} (*)$ (not fulfill expectation)	$\Pi_1 = \frac{(a + 2c_2 - 3c_1)^2}{16b} (*)$ $\Pi_2 = \frac{(a + c_1 - 2c_2)^2}{8b}$ (fulfill expectation)	$\Pi_1 = \frac{(a + 2c_2 - 3c_1)(2a + c_2 - 3c_1)}{16b}$ $\Pi_2 = \frac{(a + 2c_1 - 3c_2)(2a + c_1 - 3c_2)}{16b}$ (not fulfill expectation)

□ Only Cournot equilibrium is Nash equilibrium where both producer 1 and 2 have (*).