

Name: _____

Economics 431 Quiz #5

People, animals, and organizations often find themselves in a situation where each must choose to “fight” (“be tough”) or “concede” (“give in”). Here are the payoffs for a two-player game of this kind, a game of “chicken”:

		Give Up	Fight
Row	Give Up	0 , 0	-1 , 3
	Fight	3 , -1	-2 , -2

The game is not constant-sum. The game has two pure strategy equilibria and one mixed strategy equilibrium. Determine each player’s mixture in the mixed strategy Nash equilibrium. Determine each player’s expected payoff if they play according to the Nash equilibrium. (Note that the game is symmetric, so the mixed strategy equilibrium should be symmetric.)

Row player’s mixture: _____ $1/4$ on G, $3/4$ on F _____

Column player’s mixture: _____ $1/4$ on G, $3/4$ on F _____

Each player’s expected payoff: _____ $- 3/4$ _____

Show your work here: