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Definition: A strategy triple (s, t, u) in a 3-player game is a Nash Equilibrium if each player's strategy is a best response to the other two players' strategies. So, s is a best response for Player 1 if Player 2 uses t and Player 3 uses u ; t is a best response for Player 2 if Player 1 uses s and Player 3 uses u ; and u is a best response for Player 3 if Player 1 uses s and Player 2 uses t .

Exercise 1: Consider the following 3-person game:

		P3			
		u_1		u_2	
		P2		P2	
		t_1	t_2	t_1	t_2
P1	s_1	(45, 50, 9)	(45, 49, 3)	(45, 53, 10)	(45, 52, 8)
	s_2	(48, 46, 2)	(0, 47, 4)	(48, 48, 0)	(46, 50, 5)
	s_3	(3, 41, 2)	(48, 47, 3)	(0, 52, 0)	(1, 50, 2)

i) Indicate Player 1's best responses by circling them, indicate Player 2's best responses by putting a square around them, and indicate Player 3's best responses by putting a triangle around them.

ii) Find all Nash equilibria.