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| **Computational Game Theory –19/20**  **15/April/2020 (10:30 – 10:50)** |  | logo |

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**1st Quiz - Example**

1. Determine **the remaining pure strategies** after iteratively eliminating strictly dominated strategies in n×m games Q1, Q2 and Q3.

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|  | Remaining Pure Strategies | |
| Game | Player 1 | Player 2 |
| Q1 | **B** | **X** |
| Q2 | **2** | **3** |
| Q3 | **4** | **5** |

1. Compute **a mixed strategy Nash equilibrium** in 2×2 games Q4, Q5 and Q6.

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|  | Nash Equilibrium | |
| Game | Player 1 | Player 2 |
| Q4 | 0.75 → 1 , 0.25 → 2 | 0.5 → 2 , 0.5 → 1 |
| Q5 | 0.33 → 1 , 0.67 → 2 | 0.67 → 2 , 0.33 → 1 |
| Q6 | 0.46 → 1 , 0.54 → 2 | 0.86 → 2 , 0.14 → 1 |

1. Compute **a Nash equilibrium** in n×m games Q7, Q8 and Q9, assuming that they can be completely solved, or reduced to 2×2 games through iterative elimination of strictly dominated strategies.

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|  | Nash Equilibrium | |
| Game | Player 1 | Player 2 |
| Q7 | 0.8 → C , 0.2 → E | 0.53 → d , 0.47 → f |
| Q8 | 0.67 → A , 0.33 → C | 0.5 → c , 0.5 → a |
| Q9 | 0.5 → C , 0.5 → B | 0.67 → 6 , 0.33 → 5 |

If you were not able to solve any of the previous questions, use this space to explain why.