Break & Quiz

Q 1.1: Which of these are zero-sum games?

(i) Rock, Paper, Scissors

(ii) Prisoner's Dilemma

- A. Neither
- B. (i) but not (ii)
- C. (ii) but not (i)
- D. Both

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- A. Neither (Rock, Paper, Scissors is, clearly)
- **B. (i) but not (ii)**
- C. (ii) but not (i) (Rock, Paper, Scissors is, clearly)
- D. Both (Prisoner's Dilemma is not, recall the normal form matrix)

Break & Quiz

Q 1.2: Which of these is false?

- A. Monopoly is not deterministic.
- B. A game can be sequential but not have perfect information.
- C. Battleship has perfect information.
- D. Prisoner’s dilemma is a simultaneous game.

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Break & Quiz

Q 1.2: Which of these is false?

- A. Monopoly is not deterministic. (True: you roll dice.)
- B. A game can be sequential but not have perfect information. (True, and in fact Battleship is an example.)
- **C. Battleship has perfect information.**
- D. Prisoner's dilemma is a simultaneous game. (Also true: single round, no turns.)

Break & Quiz

Q 2.1: Which of the following is true

(i) Rock/paper/scissors has a dominant pure strategy

(ii) There is no Nash equilibrium for rock/paper/scissors

- A. Neither
- B. (i) but not (ii)
- C. (ii) but not (i)
- D. Both

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Break & Quiz

Q 2.1: Which of the following is **false**?

(i) Rock/paper/scissors has a dominant pure strategy

(ii) There is no Nash equilibrium for rock/paper/scissors

- A. Neither (There is a mixed strategy Nash equilibrium)
- **B. (i) but not (ii)**
- C. (ii) but not (i) (i is indeed false: easy to check that there's no deterministic dominant strategy)
- D. Both (Same as A)

Break & Quiz

Q 2.2: Which of the following is true

(i) Nash equilibria require each player to know other players' possible strategies

(ii) Nash equilibria require rational play

- A. Neither
- B. (i) but not (ii)
- C. (ii) but not (i)
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Break & Quiz

Q 2.2: Which of the following is true

(i) Nash equilibria require each player to know other players' possible strategies

(ii) Nash equilibria require rational play

- A. Neither (See below)
- B. (i) but not (ii) (Rational play required: i.e., what if prisoners desire longer jail sentences?)
- C. (ii) but not (i) (The basic assumption of Nash equilibria is knowing all of the potential strategies involved)