# Econometrics I, quiz 1 

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1. This is a 15 -minute quiz
2. At NO point in the exam can you discuss the questions/answers with any of your colleagues.
3. When a multiple choice is present, circle the number indicating your choice of the answer.
4. Good luck. :-)

- Q1: The event space is formed by three tosses of a coin. (4 points)
- What is the event space?
- What is the probability that three tosses will give two heads and one tail?
- Q2: A door-to-door salesperson has found that her success rate in selling is 0.2. If the salesperson contacts three persons, what is the probability that ( $\mathbf{3}$ points)

1. She sells to all three?
2. She sells to exactly one?
3. She sells to at least one?

- Consider the following marginal distributions for $X, Y$. (3 points)

|  | 0 | 1 |  |
| ---: | ---: | ---: | ---: |
| 0 |  | 0.14 | 0.20 |
| 1 | 0.06 |  | 0.20 |
| 2 | 0.15 | 0.45 | 0.60 |
|  | 0.27 | 0.73 | 1 |

1. Fill in the missing joint probabilities.
2. Are $X, Y$ independent?
