

# Econometrics I, quiz 2

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1. This is a 10-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. :-)

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- **Q1 (10 points):** One of the well known discrete distributions is a binomial distribution. The binomial outcome is the sum of a given number ( $N$ ) of bernoulli outcomes. Example, the number of times the inr-usd rate **goes up** in a fixed  $N$  set of days. The binomial is parameterised by  $N$ , and  $p$  the probability of “success” of the bernoulli outcome. The binomial probability of an outcome  $s$  is given by:

$$\Pr(X = s) = \frac{n!}{(n-s)!s!} p^s (1-p)^{(n-s)}$$

In the quiz problem, the binomial variable  $x$  is distributed with  $n = 5$  and  $p = 0.2$ .

1. What is the PD of the binomial?

x	Pr(x)	

2. What is the expected value of  $x$ ?