# **NPFL 054**

Entry test in probability and statistics

October 2018

## Students and questions

- 65 students took the test (written form, 2 pages, 20 minutes)
  - 31% stated they have not passed any university course on probability/statistics
  - 90% students of Faculty of Mathematics and Physics (MFF), 10% Faculty of Science (PřF)
  - 2 students did not state their name

#### 13 test questions on

- simple probability calculating (1)
- conditional probability (4)
- joint probability (4)
- statistical independence (1)
- binomial distribution (1)
- sample mean (1)
- o median (1)

### **Evaluation**

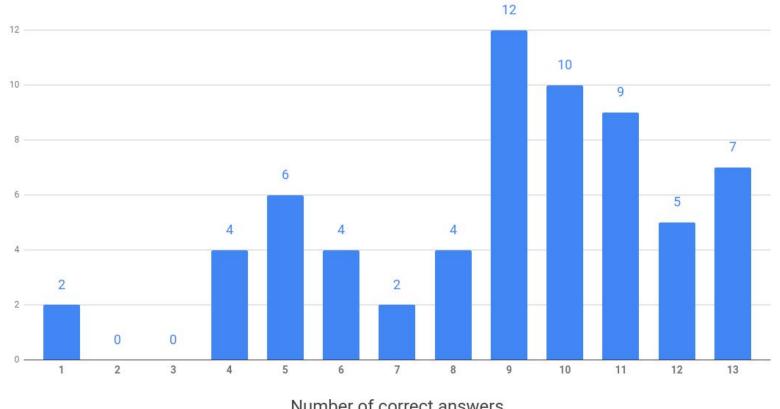
- Maximum score = 13 points
  - o 13 questions equally scored, each by 1 point

- Painful missing knowledge
  - binomial distribution only 40% of answers correct
  - o conditional probability only 55% of answers correct

- Your knowledge of probability and statistics should be practical
  - you should be able to apply your theoretical knowledge to practical exercises

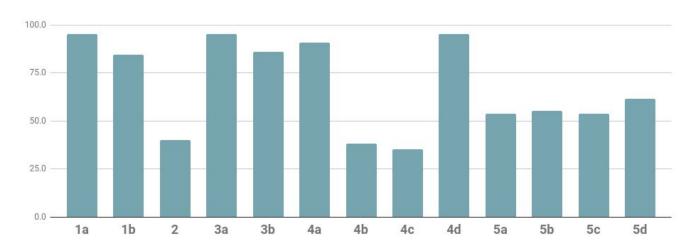
Total points sorted	
13	
13	
13	
13	perfect
13	
13	1.0000
12	≥ 12
12	
12	
12	
11	
11	
11	
11	
11	
11	
11	good
10	
10	≥ 10
10	2 10
10	
10	
10	
10	
10	
9	
9	
9	
9	
9	
9	
9	moderate
9	
9	
9	≥7
8	
8	
8	
7	
7	
6	
6	
6	weak
5	Wear
5	
5	≥5
5	
5	
4	111111111
4	poor
4	
4	are.
1	< 5

## Entry test in probability and statistics - distribution of correct answers



Number of correct answers

#### Percentage of correct answers



#### **Questions**

- 1. Calculating probability
- 2. Binomial distribution
- 3. Sample mean and median
- 4. Joint probability
- 5. Conditional probability and statistical independence

## Percentage of correct answers

Depending on the previous course in probability/statistics

