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)
  ○ median (1)
Evaluation

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

- **Painful missing knowledge**
  - binomial distribution – only 40% of answers correct
  - 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
Entry test in probability and statistics – distribution of correct answers

Number of correct answers

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<th>Number of correct answers</th>
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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

- Blue bars represent previous course = YES
- Red bars represent previous course = NO

Questions:
- 1a
- 1b
- 2
- 3a
- 3b
- 4a
- 4b
- 4c
- 4d
- 5a
- 5b
- 5c
- 5d