## NPFL 054 <br> 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 = $\mathbf{1 3}$ 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
perfect
$\geq 12$
good

Entry test in probability and statistics - distribution 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


