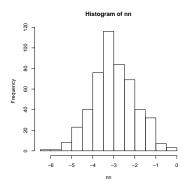
## Exam

## 31.07.2013

Name: ID number: Number of points: STAT821

- 1 [15] What is the probability of obtaining exactly 5 tails if we toss a fair coin 8 times?
- 2 [15] Data for variable nn are represented graphically.



- (a) Is standard deviation 1, 2 or 4?
- (b) Is mean -3, 0 or 3?
- 3 [15] A genetically modified mouse does not survive the first month of life with probability 0.40.
  - (a) We planned an experiment that included 10 mice. What is the probability that after a month not more than a mouse will survive?
  - (b) What is the expected number of mice still alive after the first month?
- 4 [5] The median value of the following data 33, 3, 7, 15, 107, 1, 41 is
  - (a) 15
  - (b) cannot be calculated
  - (c) 29.6
  - (d) 16

## Good luck!