

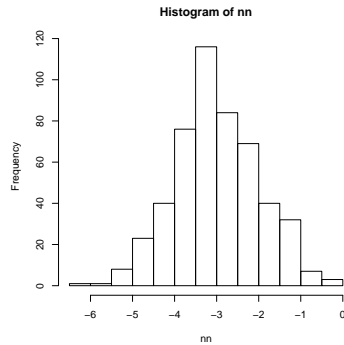
# Exam

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!**