

# ASM assignment 2

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## Exercise 3.4

- (a) Run the following simulation 200 times:
- $x_i \stackrel{i.i.d}{\sim} N(\mu_i, 1)$  for  $i = 1, 2, \dots, 500$
  - $\mu_i = 3i/500$
  - $i_{max} = \text{index of largest } x_i$
  - $d = x_{i_{max}} - \mu_{i_{max}}$
- (b) Plot the histogram of the 200 d values
- (c) What is the relation to Figure 3.4?

## Solution

- (a)