

Compulsory exercise 1: Group XYZ (add your group number here)

TMA4268 Statistical Learning V2021

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For some problems you will need to include some LaTeX code. Please install latex on your computer and then consult Compulsory1.Rmd for hints how to write formulas in LaTeX.

An example:

$$Y_i = f(x_i) + \varepsilon_i ,$$

Or the same formula $Y_i = f(x_i) + \varepsilon_i$ in-line.

Problem 1

a)

b)

c)

```
id <- "1X_80KcoYbng1XvYFDirxjEWr7LtpNr1m" # google file ID
values <- dget(sprintf("https://docs.google.com/uc?id=%s&export=download", id))
```

```
X = values$X
dim(X)
```

```
## [1] 100 81
```

```
x0 = values$x0
dim(x0)
```

```
## [1] 81 1
```

```
beta=values$beta
dim(beta)
```

```
## [1] 81 1
```

```
sigma=values$sigma
sigma
```

```
## [1] 0.5
```

Problem 2

a)