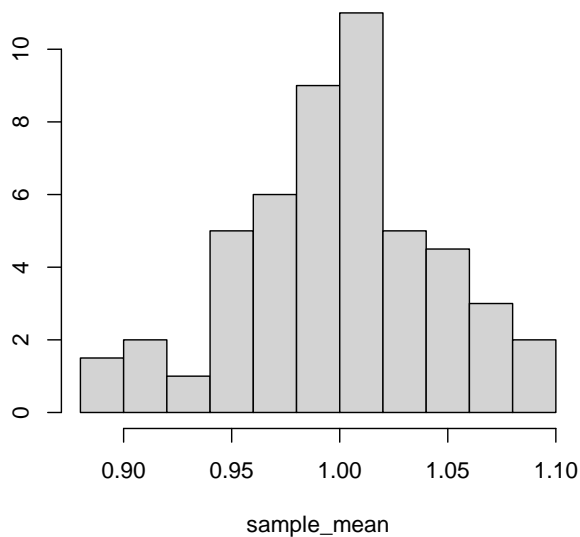# NDH802 - Assignment 2

Group no.

Suppose we want to invetigate the cheating behaviors among the Swedish students in a school year. The variable of interest is binary, to cheat or not to cheat. Each student takes ten exams. The probability of cheating is 10% (similarly applicable for all exams, all students).

Normally, we don't know the so-called true distribution, but for the sake of learning CLT, let's pretend we do to simulate data. Once you have created the data, you pretend you didn't know anything about it and try to "infer" it from your observations.

Distribution of the sample mean	CLT normal approximation
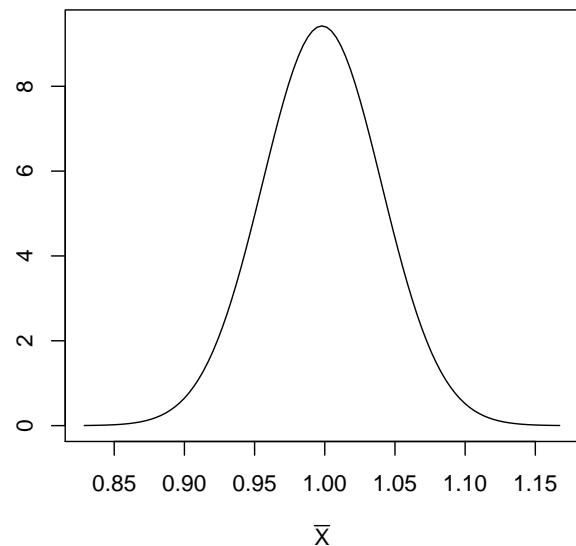

```
cutpoint = mu
sum(sample_mean < cutpoint)/length(sample_mean)
```

```
## [1] 0.45
```

```
pnorm(cutpoint, mean = mu, sd = sqrt(sigma_squared_clt))
```

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