Porazdelitev ocen

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Contents

1 Standardna napaka ocene

```
> n <- 4
> m <- 10
> X <- matrix(rnorm(n * m), m, n)
> est <- apply(X, 1, mean)
> E <- mean(est)
> se <- sd(est)
> se
[1] 0.4826579
```

2 Funkcija

Funkcija za prikaz vzorčne porazdelitve.

```
> ocene <- function(n = 4, m = 1000, FUN = rnorm, cenilka = mean,
+     ...) {
+     ctext <- deparse(substitute(cenilka))
+     X <- matrix(FUN(n * m, ...), m, n)
+     est <- apply(X, 1, cenilka)
+     E <- mean(est)
+     se <- sd(est)
+     cat("Standardna napaka: \n", se, "\n")
+     par(mfrow = c(2, 1))
+     hist(X, col = "lightgreen", xlim = range(X))
+     hist(est, col = "lightblue", xlim = range(X), main = ctext)
+     return(c(povp = E, se = se, n = n))
+ }
```
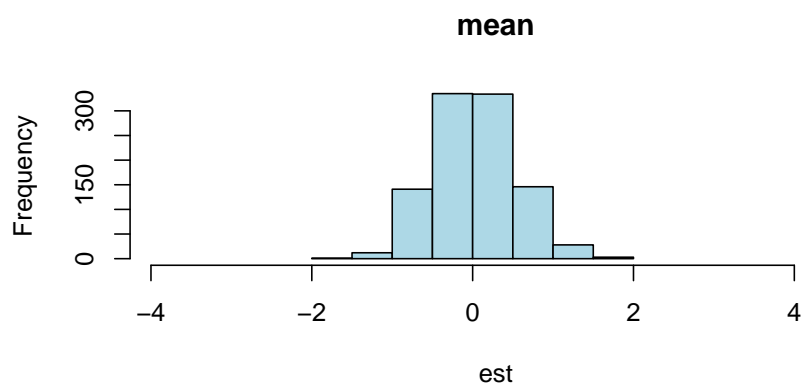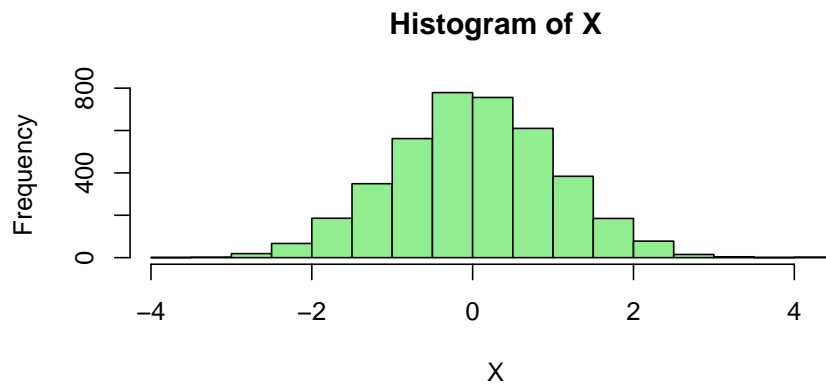
2.1 Povprečje normalne porazdelitve

```
> ocene()
```

```
Standardna napaka:
 0.5132042
       povp          se           n
 0.02698115 0.51320417 4.00000000
```

Histogram of X

mean


```
> ocene()
```
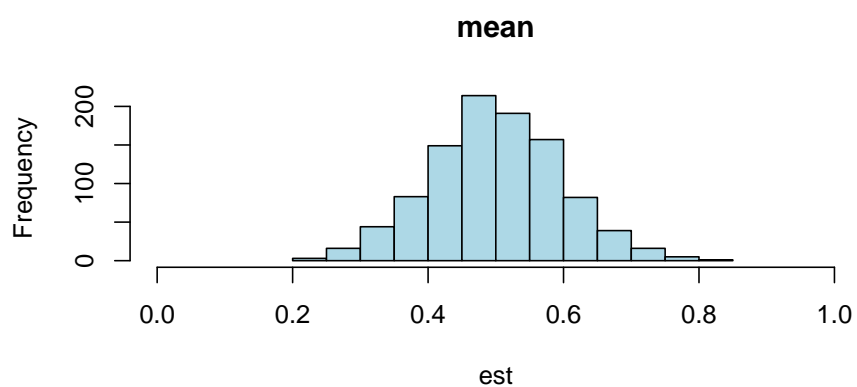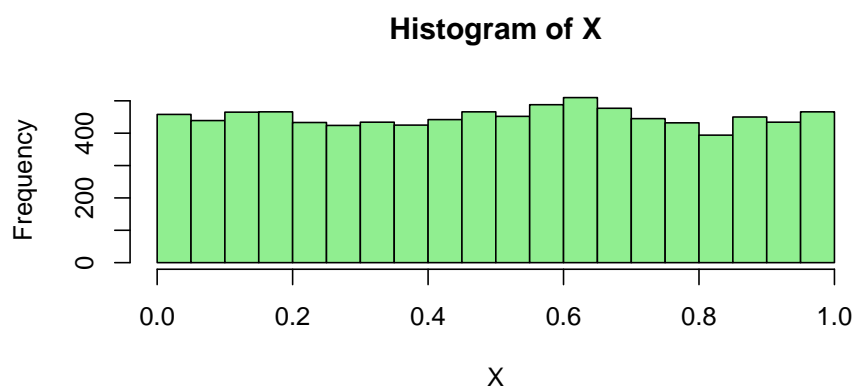
```
Standardna napaka:
```

2.2 Enakomerna porazdelitev

```
> ocene(n = 9, FUN = runif)
```

```
Standardna napaka:
 0.09601268
       povp          se           n
 0.49978455 0.09601268 9.00000000
```

Histogram of X

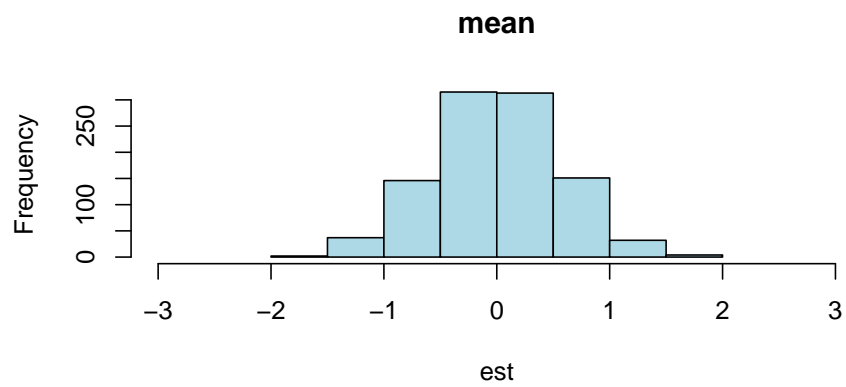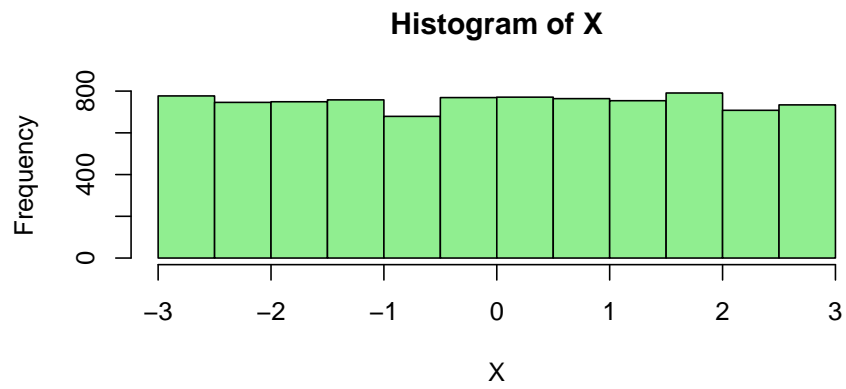**mean**

```
> ocene(n = 9, FUN = runif, min = -3, max = 3)
```

```
Standardna napaka:
 0.5635347
        povp          se           n
-0.00420401   0.56353474   9.00000000
```
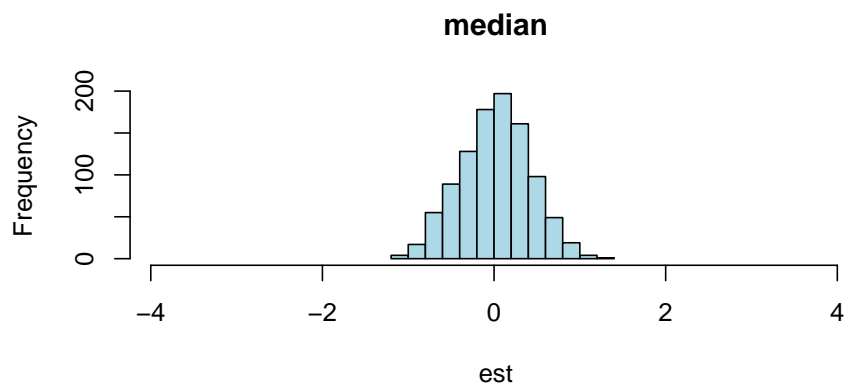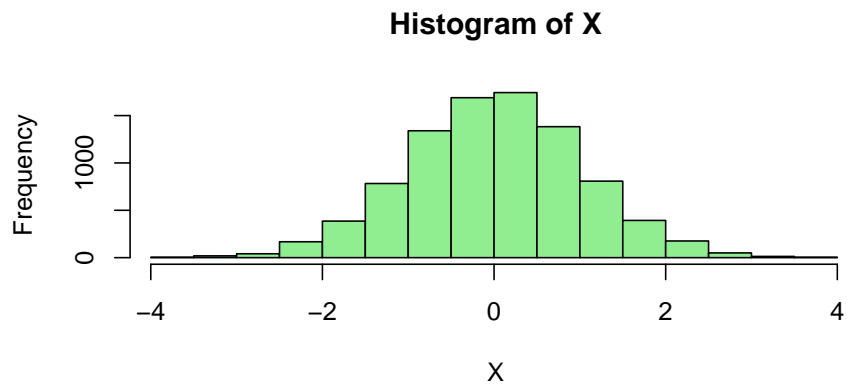
Histogram of X

mean

2.3 Porazdelitev median

```
> ocene(n = 9, cenilka = median)
```

```
Standardna napaka:
 0.4043319
      povp         se          n
0.01685248 0.40433195 9.00000000
```

Histogram of X

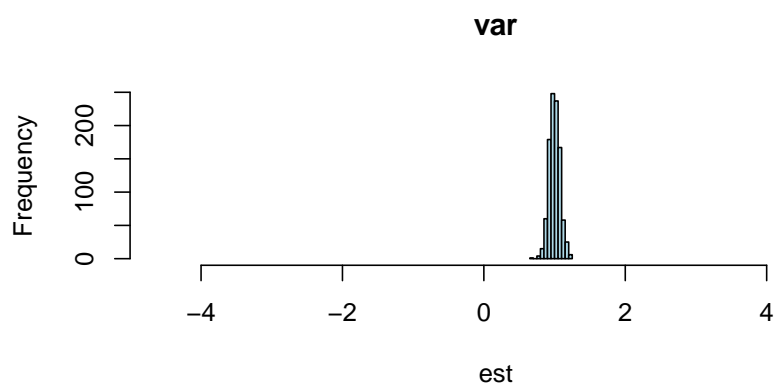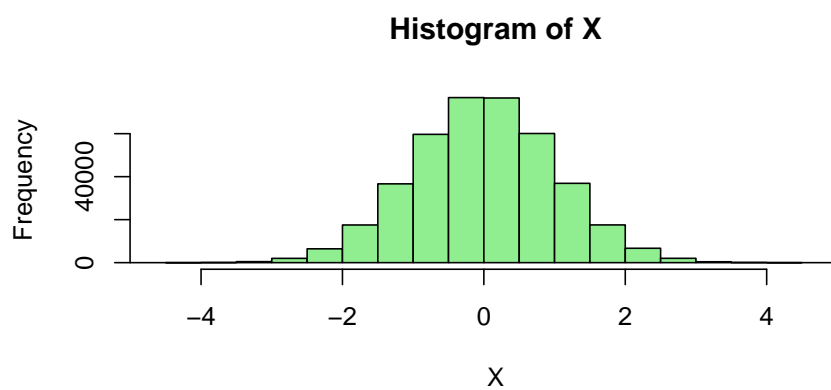**median**

2.4   Porazdelitev varianc

```
> ocene(n = 400, cenilka = var)
```

```
Standardna napaka:
 0.07490097
         povp            se              n
 1.00020656    0.07490097 400.00000000
```
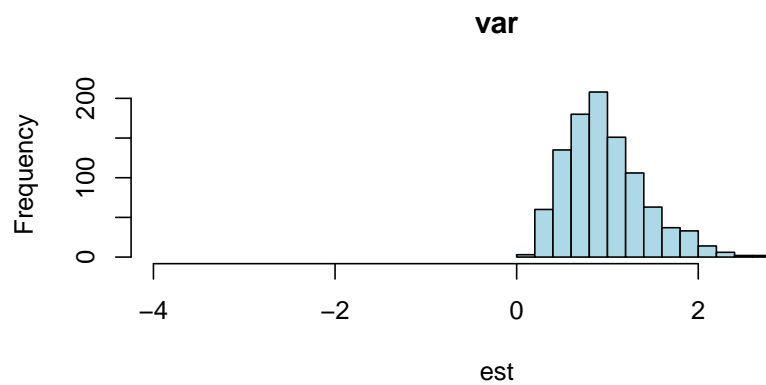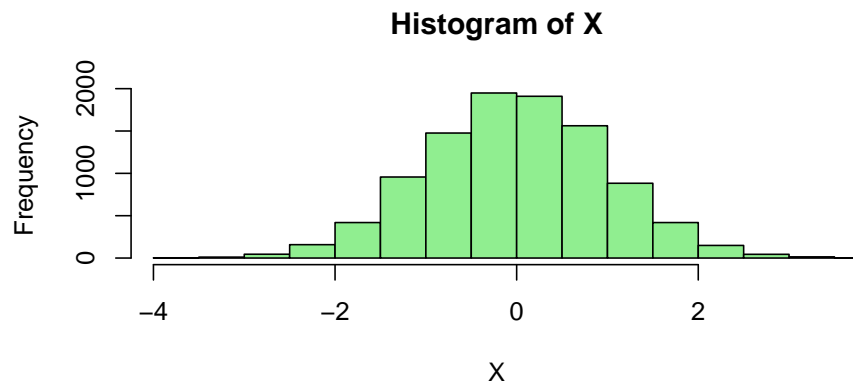
Histogram of X

var

```
> ocene(n = 10, cenilka = var)
```

Standardna napaka:
 0.4365674
       povp   se   n
 0.9766378   0.4365674 10.0000000

Histogram of X

var

SessionInfo

Windows 7 x64 (build 7601) Service Pack 1

- R version 3.0.2 (2013-09-25), `x86_64-w64-mingw32`

- Locale: `LC_COLLATE=Slovenian_Slovenia.1250`,
  `LC_CTYPE=Slovenian_Slovenia.1250`, `LC_MONETARY=Slovenian_Slovenia.1250`,
  `LC_NUMERIC=C`, `LC_TIME=Slovenian_Slovenia.1250`

- Base packages: base, datasets, graphics, grDevices, grid, methods, splines, stats, utils

- Other packages: cluster 1.14.4, Formula 1.1-1, Hmisc 3.13-0, lattice 0.20-23, patchDVI 1.9, survival 2.37-4

- Loaded via a namespace (and not attached): tools 3.0.2

Project path: `D:/_Y/R/rps`
Main file : `../doc/vzorcna.Rnw`

View as vignette

Project files can be viewed by pasting this code to R console:

```
> projectName <-"rps";  mainFile <-"vzorcna"

> commandArgs()
> library(tkWidgets)
> openPDF(file.path(dirname(getwd()), "doc", paste(mainFile,
+     "PDF", sep = ".")))
> viewVignette("viewVignette", projectName, file.path("../doc",
+     paste(mainFile, "Rnw", sep = ".")))
```