

```
> source("cv4.R")
```

GRAFIKA V R

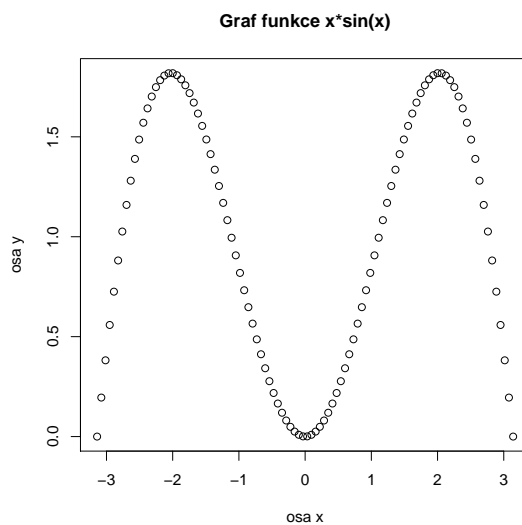
Na dalsi ukol se dostanete klavesou c nebo ENTER.

1. Na intervalu $[-\pi, \pi]$ vykreslete graf funkce $x \cdot \sin(x)$.

Popiste radne osy a pridejte nazev grafu.

Called from: `eval.with.vis(expr, envir, enclos)`

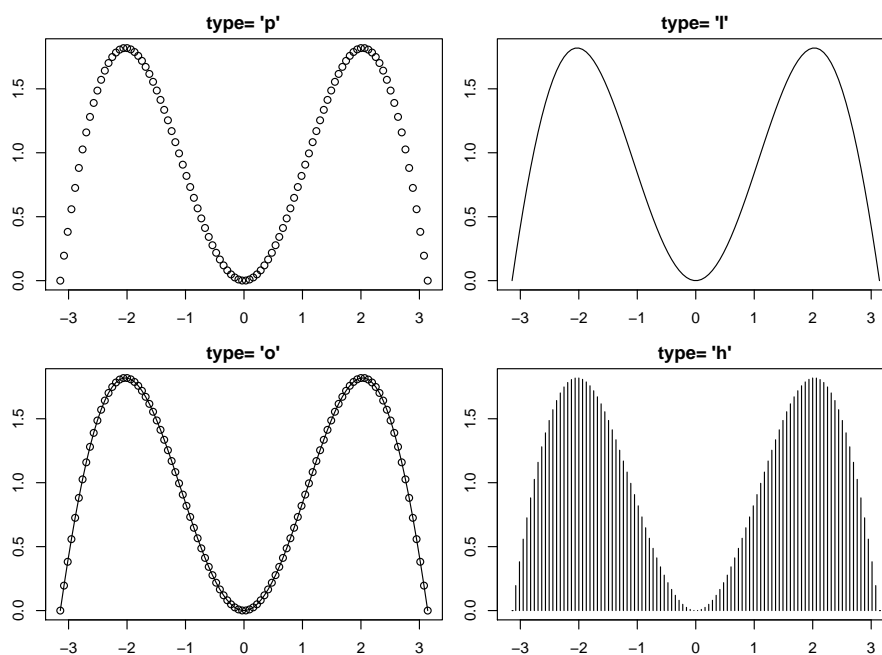
```
Browse[1]> # prikaz
```



2. Vyzkousejte moznosti vykresleni pomoci argumentu "type".

Called from: `eval.with.vis(expr, envir, enclos)`

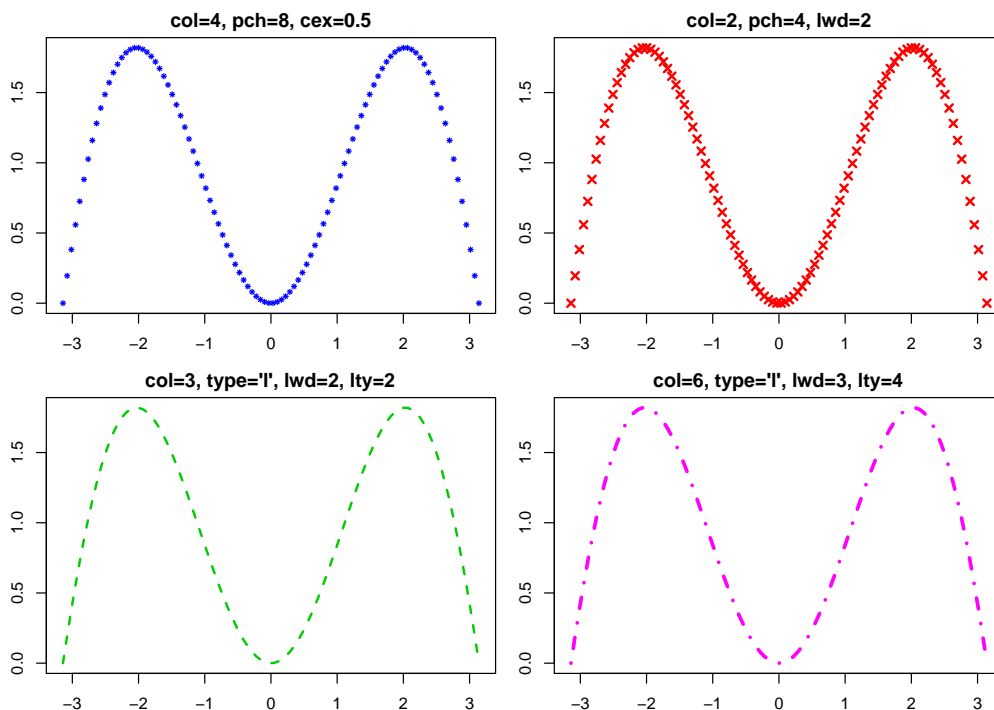
```
Browse[1]> # prikaz
```



3. Zkuste menit barvy, velikosti a typy vykreslovanych bodu, mente typy car.

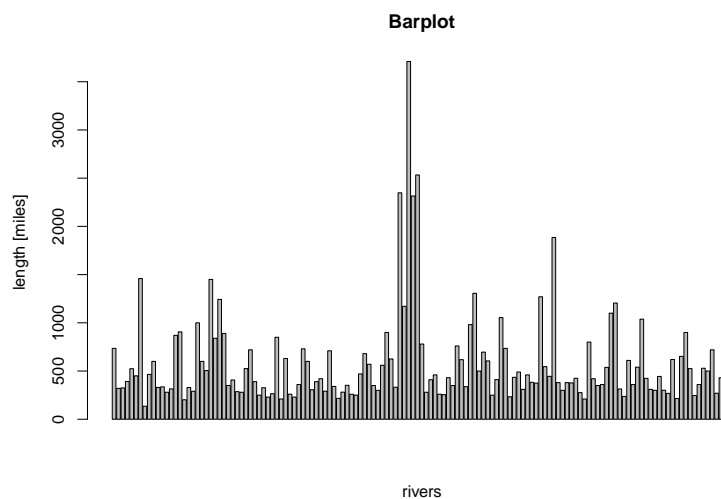
Called from: `eval.with.vis(expr, envir, enclos)`

`Browse[1]> # prikaz`

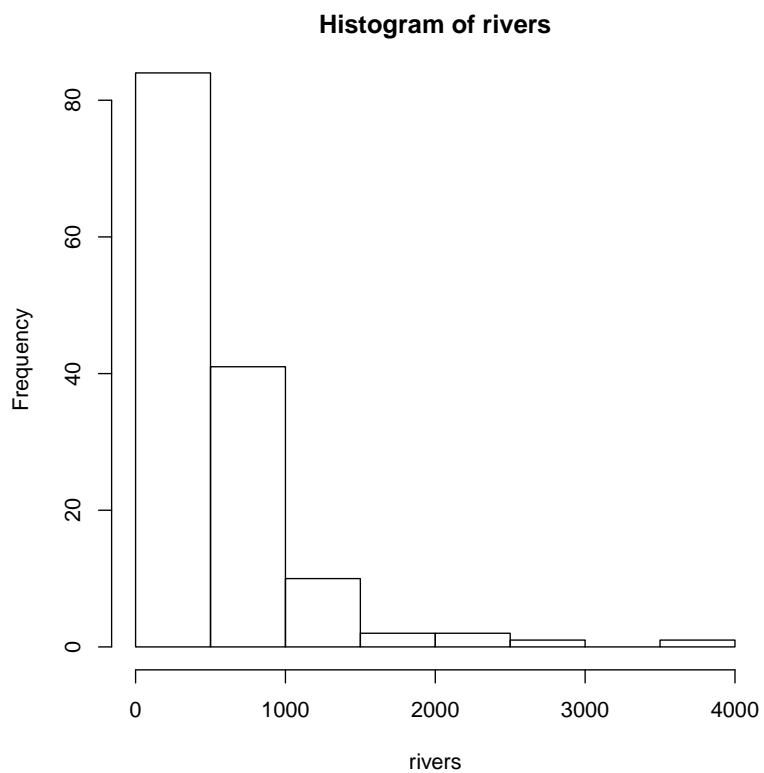


4. Pro delky severoamerickych rek (objekt "reky" v souboru "reky.dat") vykreslete sloupcovy diagram, histogram, boxplot a stripchart. Pomoci funkci "qqnorm" a "qqline" zjistete, zda se data ridi normalnim rozlozenim. Called from: `eval.with.vis(expr, envir, enclos)`

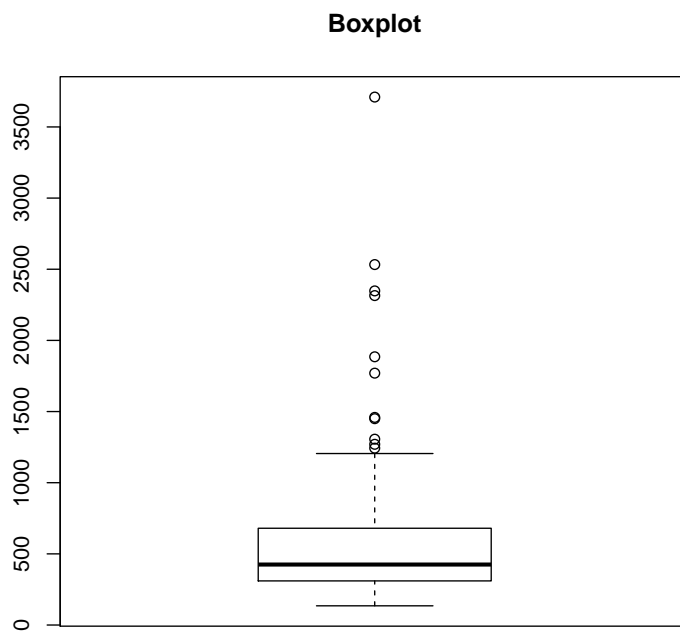
`Browse[1]> # prikaz ### sloupcovy diagram`



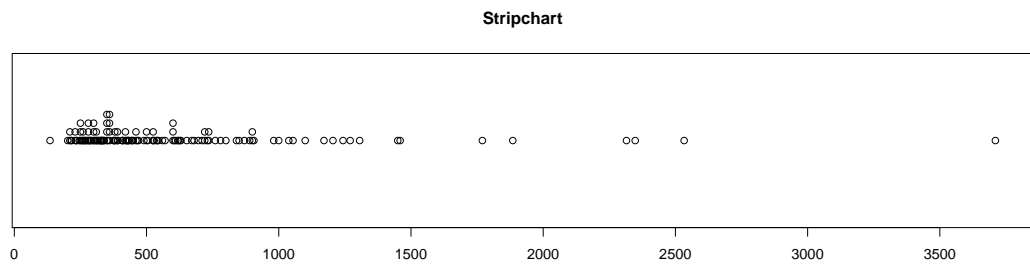
```
Browse[1]> # prikaz   ### histogram
```



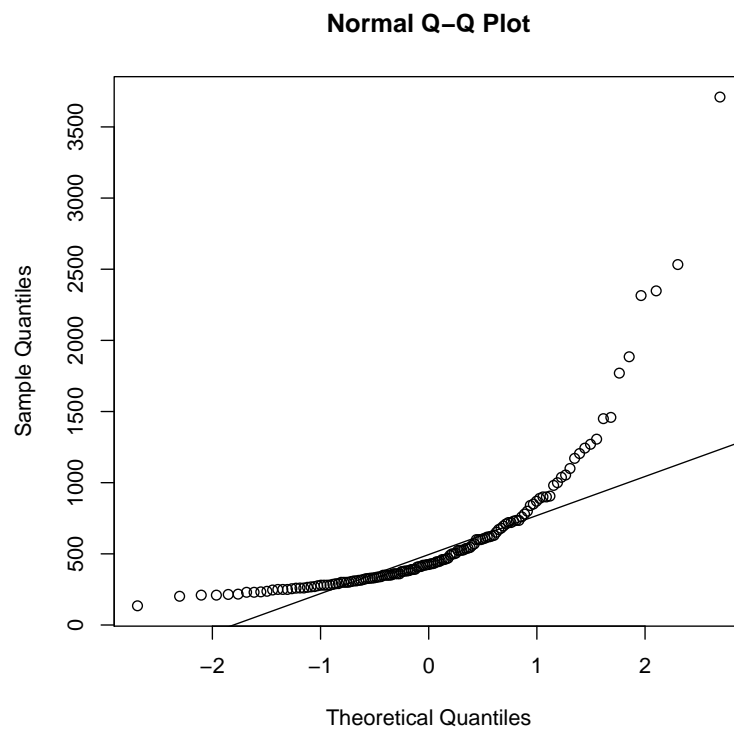
```
Browse[1]> # prikaz   ### boxplot
```



```
Browse[1]> # prikaz   ### stripchart
```

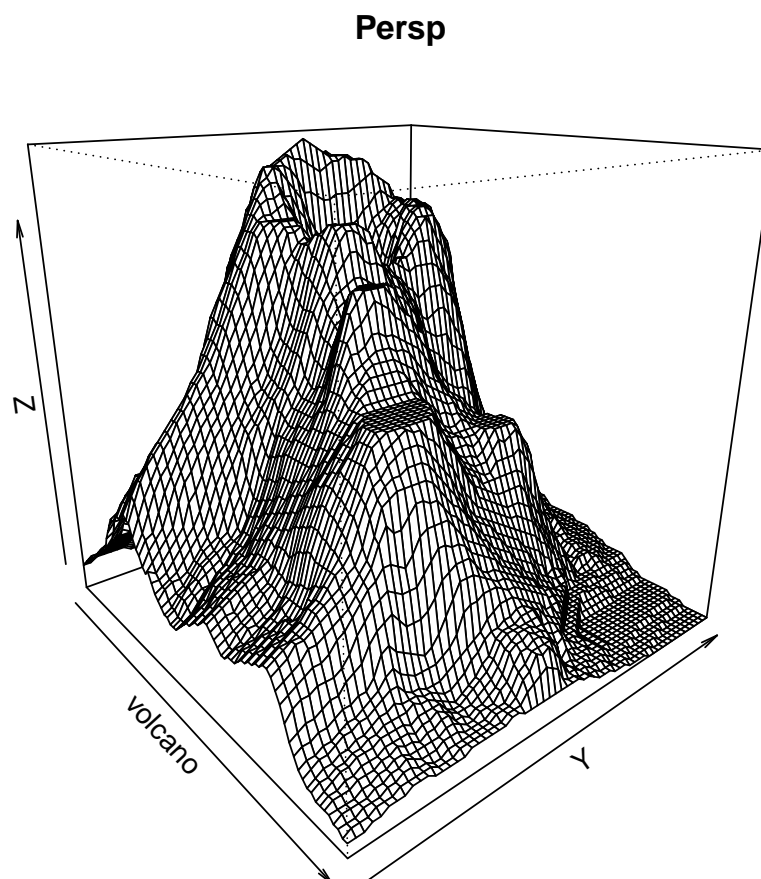


```
Browse[1]> # prikaz   ### overeni normality dat
```



5. Pomoci funkce "persp" zobrazte vulkan Mt. Eden (vestavena promenna "volcano"), vhodne pouzijte argumenty funkce k natoceni vulkanu.
Called from: eval.with.vis(expr, envir, enclos)

*Browse[1]> # prikaz ### natoceni vulkanu: napr. o 50 stupnu ve vertikalnim smeru
a o 20 stupnu v horizontalnim smeru*

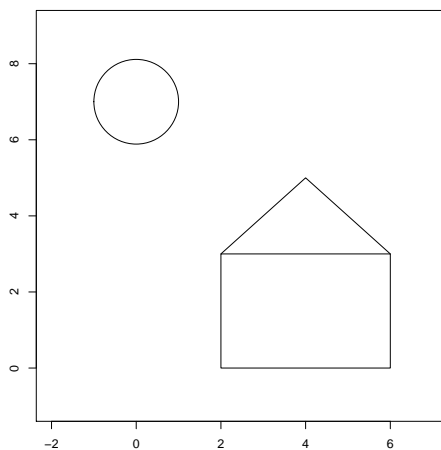


6. Pomoci low-level funkci vyzkousejte vykreslit jednoduché tvary:

- kruznici se stredem v bode [0,7] a polomerem 1,
- lomenu caru mezi body [2,3], [4,5], [6,3],
- obdelnik s vrcholy v bodech [2,0], [2,3], [6,0], [6,3].

Called from: eval.with.vis(expr, env, enclos)

Browse[1]> # prikaz



7. Do dvou samostatnych grafu vedle sebe zakreslete pozorovane teploty tela dvou bobru (vestavena data "beaver1", "beaver2").

Called from: eval.with.vis(expr, env, enclos)

Browse[1]> # prikaz

Teploty tela dvou bobru

