

```
<< Statistics`LinearRegression`
```

```
SetDirectory["c:\\student\\praktikum"]
```

```
c:\\student\\praktikum
```

```
podaci = ReadList["mjerjenje.txt", {Number, Number}]
```

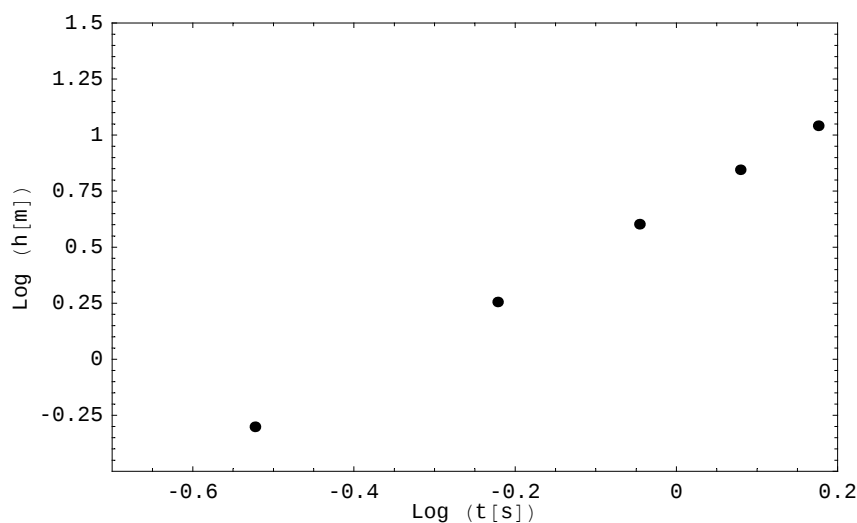
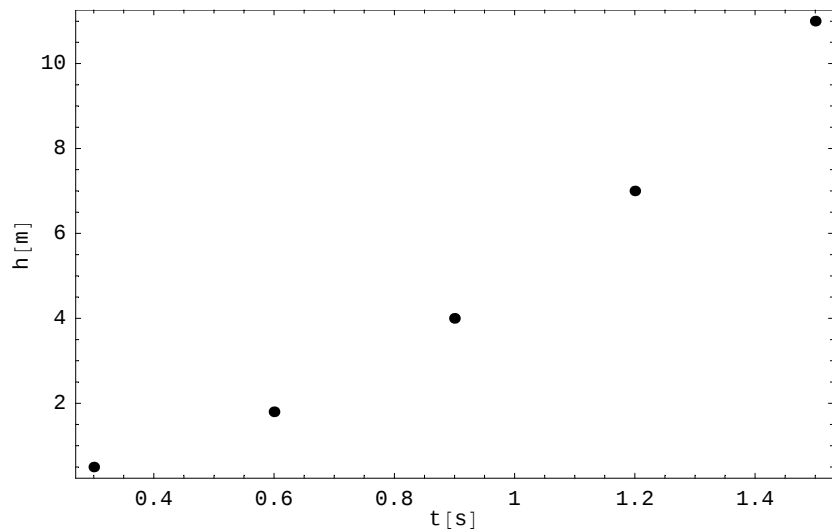
```
{{0.3, 0.5}, {0.6, 1.8}, {0.9, 4.}, {1.2, 7.}, {1.5, 11.}}
```

```
podaciLog = Log[10., podaci]
```

```
{{-0.522879, -0.30103}, {-0.221849, 0.255273},  
{-0.0457575, 0.60206}, {0.0791812, 0.845098}, {0.176091, 1.04139}}
```

```
podaciSlika = ListPlot[podaci, PlotStyle → AbsolutePointSize[5], Axes → False, Frame → True,  
FrameLabel → {"t[s]", "h[m]"}, PlotRange → {Automatic, All}, ImageSize → 400];
```

```
podaciLogSlika = ListPlot[podaciLog, PlotStyle → AbsolutePointSize[5],  
Axes → False, Frame → True, FrameLabel → {"Log (t[s])", "Log (h[m])"},  
PlotRange → {{-0.7, 0.2}, {-0.5, 1.5}}, ImageSize → 400];
```



```
regresija = Regress[podaciLog, {1, x}, x, RegressionReport -> {BestFit, ParameterCITable}]
```

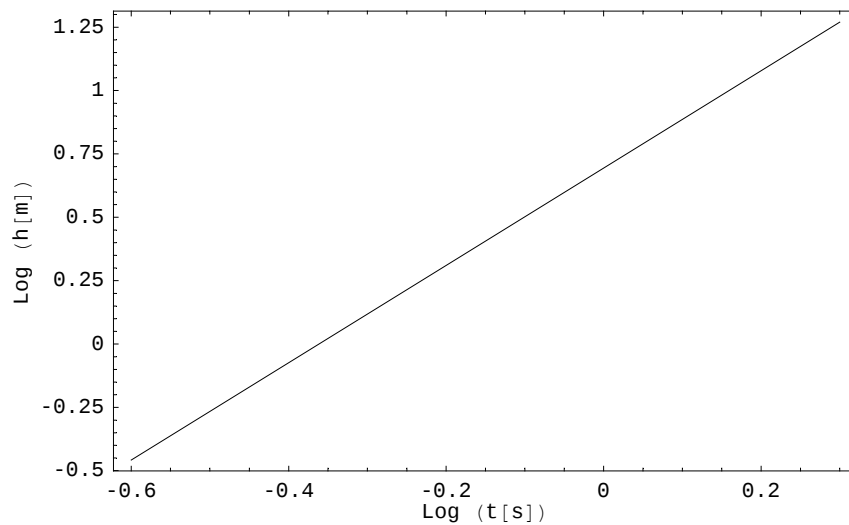
```
{BestFit -> 0.694072 + 1.91992 x,
```

|                       | Estimate | SE         | CI                   |
|-----------------------|----------|------------|----------------------|
| ParameterCITable -> 1 | 0.694072 | 0.00523789 | {0.677403, 0.710741} |
| x                     | 1.91992  | 0.0194667  | {1.85797, 1.98187}   |

```
funkcija = regresija[[1, 2]]
```

```
0.694072 + 1.91992 x
```

```
fitSlika = Plot[funkcija, {x, -0.6, 0.3}, Axes -> False,  
Frame -> True, FrameLabel -> {"Log (t[s])", "Log (h[m])"}, ImageSize -> 400];
```



```
Show[podaciLogSlika, fitSlika];
```

