

## 1. Problem

Consider the following regression results:

Call:

```
lm(formula = log(y) ~ log(x), data = d)
```

Residuals:

Min	1Q	Median	3Q	Max
-6.6119	-1.4477	0.1735	1.5365	4.8160

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	0.1264	0.2520	0.501	0.618
log(x)	0.2870	0.2279	1.259	0.212

Residual standard error: 2.251 on 79 degrees of freedom

Multiple R-squared: 0.01967, Adjusted R-squared: 0.007263

F-statistic: 1.585 on 1 and 79 DF, p-value: 0.2117

Describe how the response  $y$  depends on the regressor  $x$ .

### Solution

The presented results describe a log-log regression.

The mean of the response  $y$  increases with increasing  $x$ .

If  $x$  increases by 1 percent then a change of  $y$  by about 0.29 percent can be expected.

However, the effect of  $x$  is *not* significant at the 5 percent level.