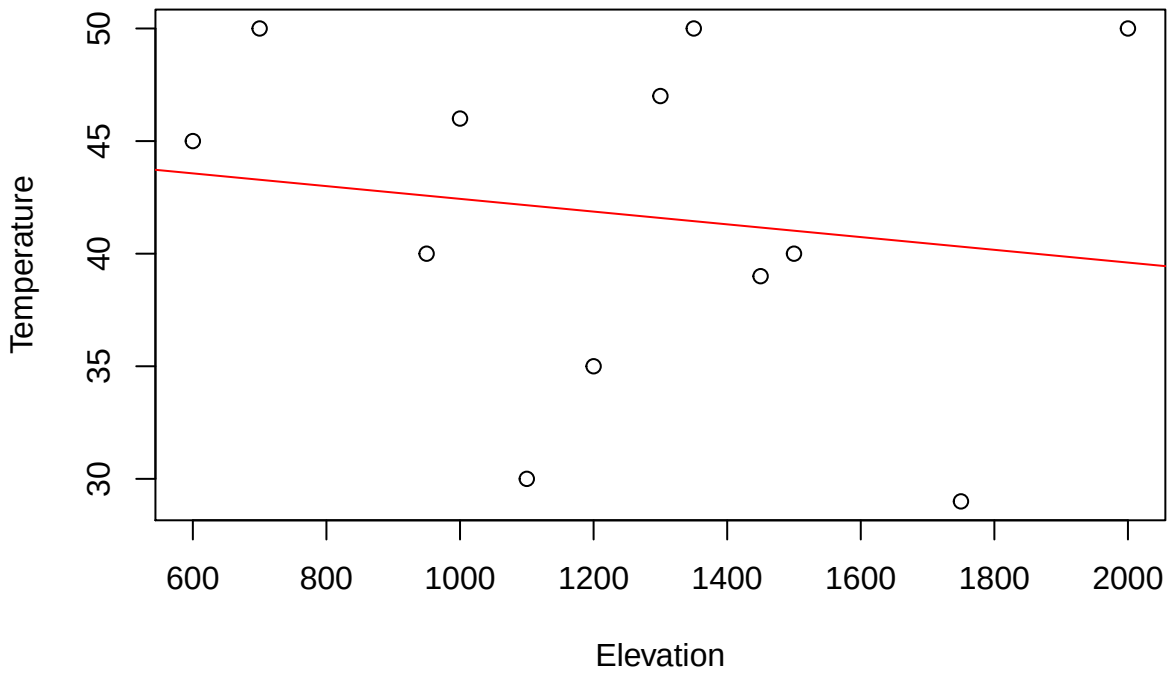
Regression analysis

```
Elevation<- c(600,700,1000,1300,1200,1450,950,1100,2000,1750,1350,1500)
Temperature<-c(45,50,46,47,35,39,40,30,50,29,50,40)
plot(Elevation,Temperature)
abline(lm(Temperature~Elevation),col="red")
```



We can use summary to dig deeper into linear model

```
lm1<- lm(Elevation~Temperature)
summary(lm1)
```

```
##
## Call:
## lm(formula = Elevation ~ Temperature)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -614.55 -256.34    2.08  199.97  827.17
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) 1590.004    718.883   2.212   0.0514 .
## Temperature   -8.343     16.969  -0.492   0.6336
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
## Residual standard error: 422.6 on 10 degrees of freedom
## Multiple R-squared:  0.0236, Adjusted R-squared:  -0.07403
## F-statistic: 0.2418 on 1 and 10 DF,  p-value: 0.6336
```

The result shows from P-value that way larger than 0.05, so elevation may not be a good independent variable to temperature