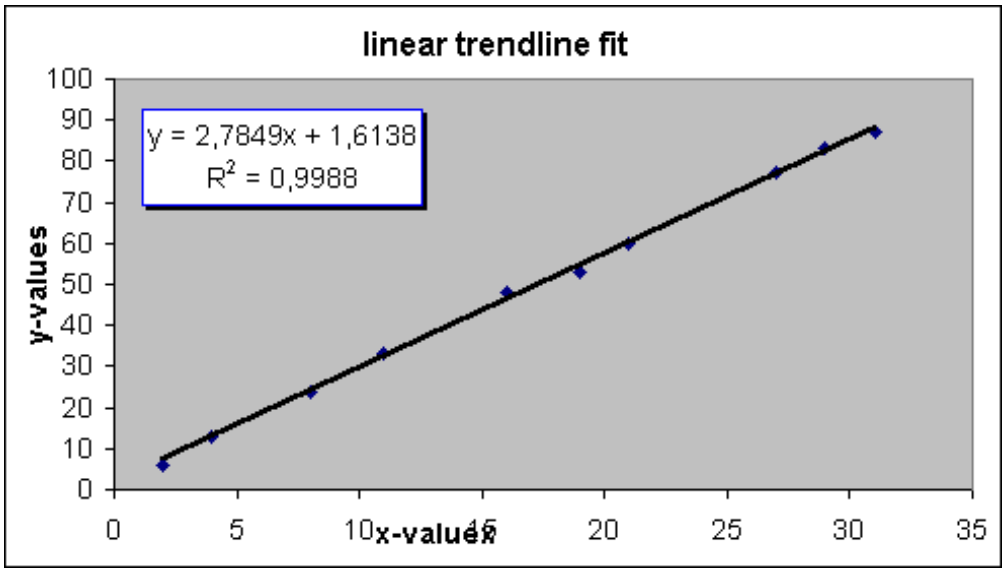
(Part II) Solutions Lab-session 5

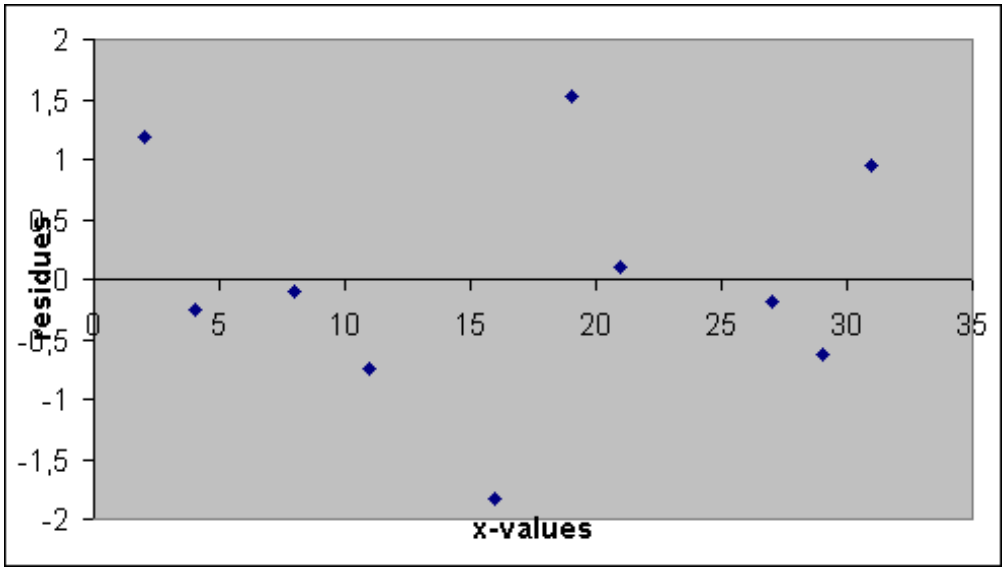
1) a) SLOPE $\rightarrow \alpha = 2.7849$ INTERCEPT$\rightarrow \beta = 1.6138$

b) LINEST $\rightarrow \alpha = 2.7849$, $\beta = 1.6138$, $r^2 = 0.9988$

c)

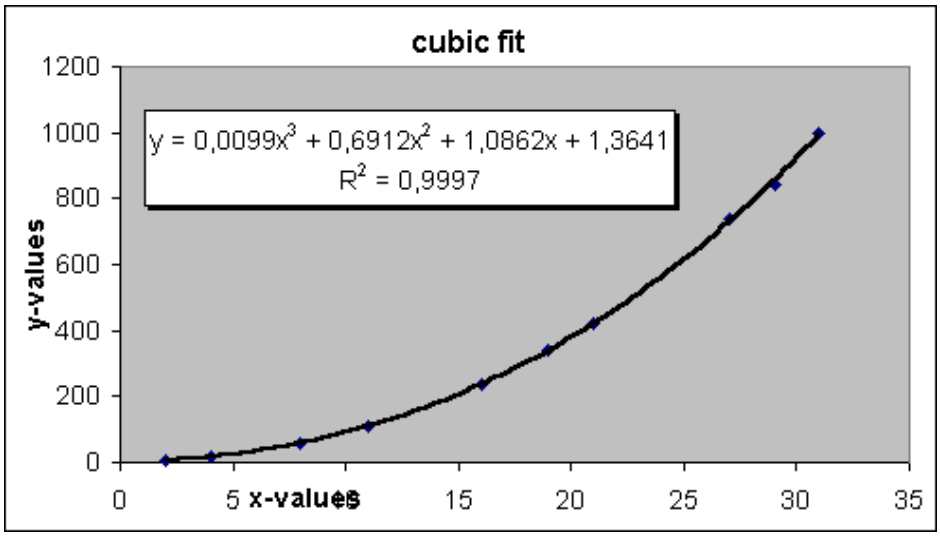


d)



Yes, they are more or less randomly distributed around zero and confirm therefore a linear correlation.

2) .



3) Function MyRegression(xdata, ydata)

```
    Dim i, n As Integer
    Dim meanx, meany, hx, hhx, hhy, Corr, Slope, Intercept As Double
    Dim tt(5)
    n = 10
    i = 1
    Do Until i = n + 1
        meanx = meanx + xdata(i) / n
        meany = meany + ydata(i) / n
        i = i + 1
    Loop
    i = 1
    Do Until i = n + 1
        hx = hx + (xdata(i) - meanx) * (ydata(i) - meany)
        hhx = hhx + (xdata(i) - meanx) ^2
        hhy = hhy + (ydata(i) - meany) ^2
        i = i + 1
    Loop
    Slope = hx / hhx
    Intercept = meany - Slope * meanx
    Corr = hx ^2 / (hhy * hhx)
    tt(0) = "Slope:"
    tt(1) = Slope
    tt(2) = "Intercept:"
    tt(3) = Intercept
    tt(4) = "Correl:"
    tt(5) = Corr
    MyRegression = tt
End Function
```