

14.7: Computer solution

MS Excel output

Table 1

• R square : $r^2 = 0.845$

• standard error : $S = 2.03$

• observation : $n = 5$

• ANOVA table :

Table 2

Residual \Rightarrow Error

significance F \rightarrow p-value = 0.03 . (since $\alpha = 0.05$, p-value $\leq \alpha$)

\rightarrow Reject H_0 ($\alpha = 0.05$).

• intercept $\rightarrow b_0 = 0.2$

• $X \rightarrow b_1 = 2.6$

p-value = 0.03

• $S_{b_1} = 0.64$

95% CI = [0.55, 4.04]

• $t = 4.04$

Table 3

95% CI is not 0

Note : 95% CI = [0.55, 4.04] we are confident that β_1 is not zero.
of interval

$\beta_1 = [0.55, 4.04]$