$\hat{\beta}_i$ erreur standard $(\hat{\beta}_i) = \sqrt{Var(\hat{\beta}_i)}$ $t_{obs} = \dfrac{\hat{\beta}_i}{ES(\hat{\beta}_i)}$

Ω Coefficients:

p_{obs} (test bilatéral)

	Estimate	Std. Error	t value	Pr(>|t|)
$\hat{\beta}_0$ (Intercept)	-39.9	11.9	-3.4	0.0038
$\hat{\beta}_1$ Air Flow	0.7	0.1	5.3	5.8e-05
$\hat{\beta}_2$ Water Temp	1.3	0.4	3.5	0.0026
$\hat{\beta}_3$ Acid Conc.	-0.2	0.2	-0.97	0.3440

H: $\beta_i = 0$

A: $\beta_i \neq 0$

$\hat{\sigma} = \sqrt{CM(erreur)}$ → degrés de liberté erreur

Residual standard error: 3.243 on 17 degrees of freedom

$R^2 = 1 - SCE/SCT$ ← Multiple R-squared: 0.9136, Adjusted R-squared: 0.8983 $= 1-(1-R^2)\left(\frac{n-1}{n-p-1}\right)$

F-statistic: 59.9 on 3 and 17 DF, p-value: 3.016e-09

↳ (audessous) numérateur degrés de liberté dénominateur degrés de liberté

Analysis of Variance Table

$F_{obs} = \dfrac{CM(modèle)}{CM(erreur)}$

Response: stack.loss

p_{obs} de F-test

source	Df	Sum Sq	Mean Sq	F value	Pr(>F)
modèle → stack.x	3	1890.4	630.1	59.5	3.01633e-09
erreur → Residuals	17	178.8	10.5		

H: $\beta_1 = \beta_2 = \beta_3 = 0$

A: au moins un $\beta_i \neq 0$

degrés de liberté

somme des carrés due à la source

carré moyen (= SC/df)

$\hat{\beta}_i$ $SE(\hat{\beta}_i)$ = standard error $(\hat{\beta}_i)$ $= \sqrt{Var(\hat{\beta}_i)}$ $t_{obs} = \frac{\hat{\beta}_i}{SE(\hat{\beta}_i)}$

Ω

Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)	
$\hat{\beta}_0$ (Intercept)	120	4.74	25.30	0.000	***
$\hat{\beta}_1$ Sex	5	6.71	0.75	0.459	
$\hat{\beta}_2$ Treatment	-15	6.00	-2.50	0.015	*
$\hat{\beta}_3$ Sex*Treatment	-10	8.49	-1.18	0.247	

← P_{obs} (bilateral test)

$H: \beta_i = 0$
$A: \beta_i \neq 0$

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

$\hat{\sigma} = \sqrt{\text{Mean Square Error}}$ → error degrees of freedom

Residual standard error: 16.43 on 60 degrees of freedom

$R^2 = 1 - \frac{SSE}{SST}$ ← Multiple R-squared: 0.2832, Adjusted R-squared: 0.2473 $= 1 - (1-R^2)\left(\frac{n-1}{n-p-1}\right)$

F-statistic: 7.901 on 3 and 60 DF, p-value: 0.0002

↳ below

numerator degrees of freedom

denominator degrees of freedom

P_{obs} for F-test

Analysis of Variance Table

Response: BloodSugar

F_{obs}

Source	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
model → Regression	3	6400	2133	7.901	0.0002	***
error → Residuals	60	16200	270			

$H: \beta_1 = \beta_2 = \beta_3 = 0$
A: at least one $\beta_i \neq 0$

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

degrees of freedom

sum of squares due to the source

mean square $(= SS/df)$