

Age (yr), x	Price (\$100)	y-hat	Residuals (y - y-hat)
5	85	89.143	-4.143
4	103	103.381	-0.381
6	70	74.905	-4.905
5	82	89.143	-7.143
5	89	89.143	-0.143
5	98	89.143	8.857
6	66	74.905	-8.905
6	95	74.905	20.095
7	70	60.667	9.333
7	48	60.667	-12.667

$$S_{xx} = \sum x^2 - \frac{(\sum x)^2}{n}$$

$$S_{yy} = \sum y^2 - \frac{(\sum y)^2}{n}$$

$$S_{xy} = \sum xy - \frac{(\sum x)(\sum y)}{n}$$

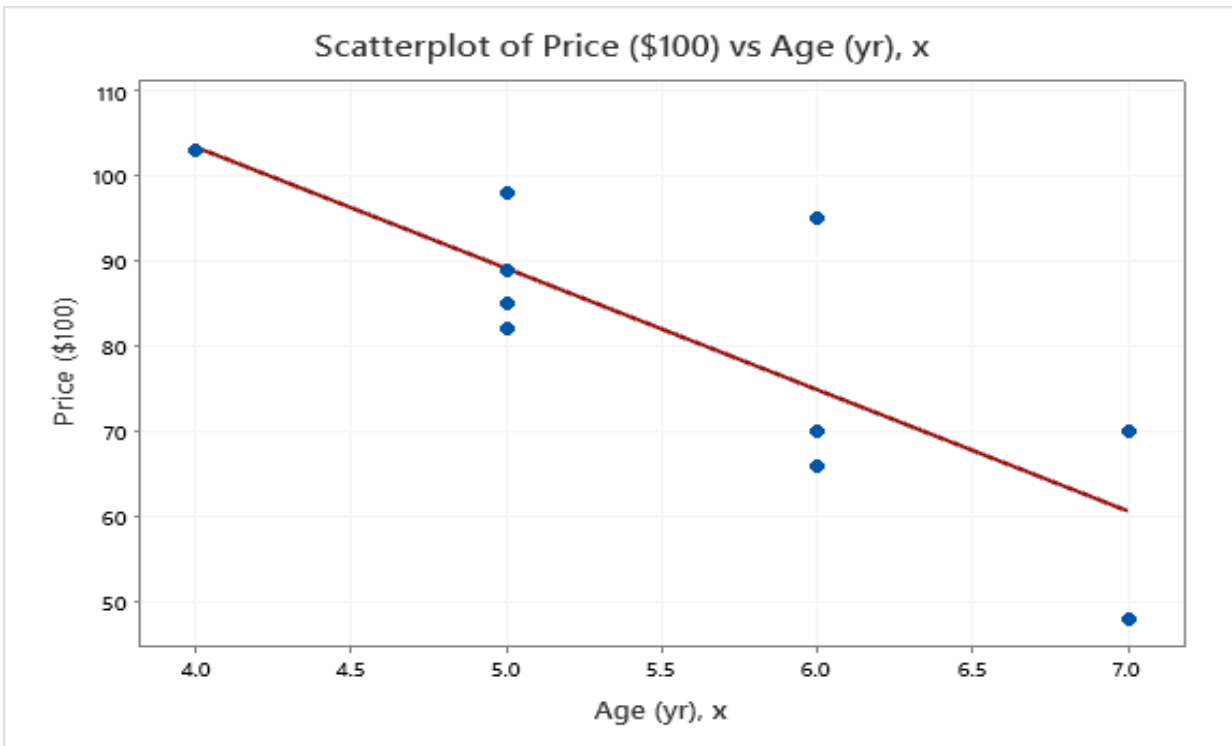
$$r = \frac{S_{xy}}{\sqrt{S_{xx}S_{yy}}}$$

$$r^2 = \frac{S_{xy}^2}{S_{xx} \cdot S_{yy}}$$

$$\hat{\beta}_1 = \frac{S_{xy}}{S_{xx}}$$

Sxx	Syy	Sxy	r	r^2	b1
8.4	2604.4	-119.6	-0.809	0.654	-14.238

y = -14.238



Regression Equation

Price (\$100) = 160.3 - 14.24 Age (yr), x

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	160.3	20.8	7.71	0.000	
Age (yr), x	-14.24	3.66	-3.89	0.005	1.00

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
10.6156	65.38%	61.06%	45.84%

Analysis of Variance

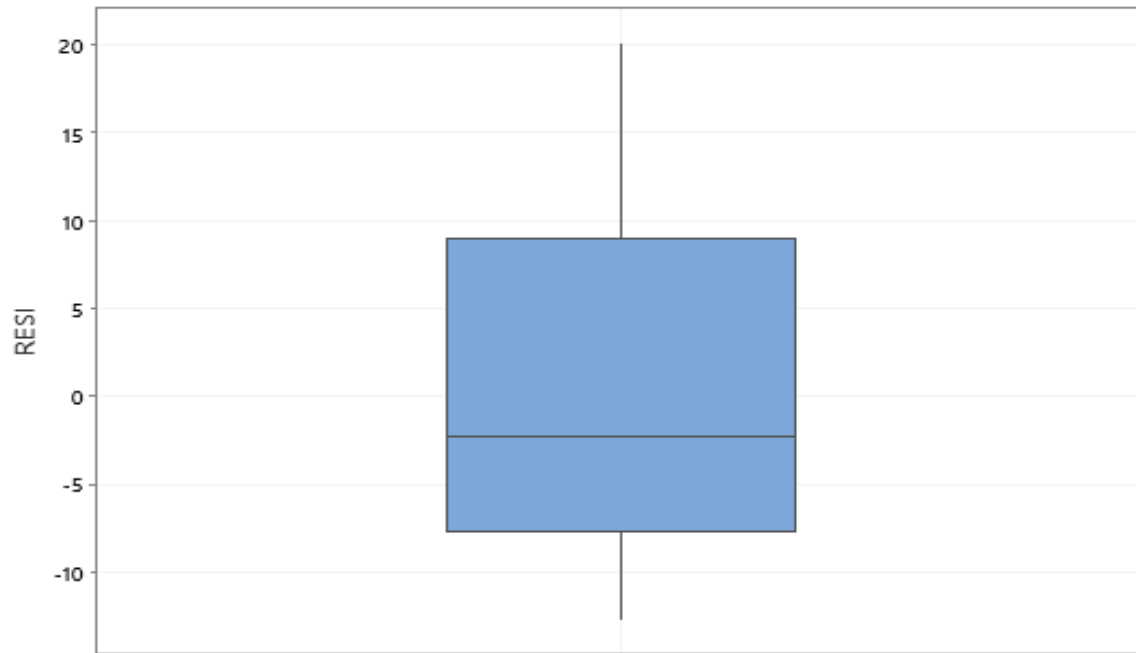
Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	1	1702.88	1702.88	15.11	0.005
Age (yr), x	1	1702.88	1702.88	15.11	0.005
Error	8	901.52	112.69		
Lack-of-Fit	2	20.52	10.26	0.07	0.933
Pure Error	6	881.00	146.83		
Total	9	2604.40			

Fits and Diagnostics for Unusual Observations

Obs	Price (\$100)	Fit	Resid	Std Resid
8	95.00	74.90	20.10	2.02 R

R Large residual

Boxplot of RESI



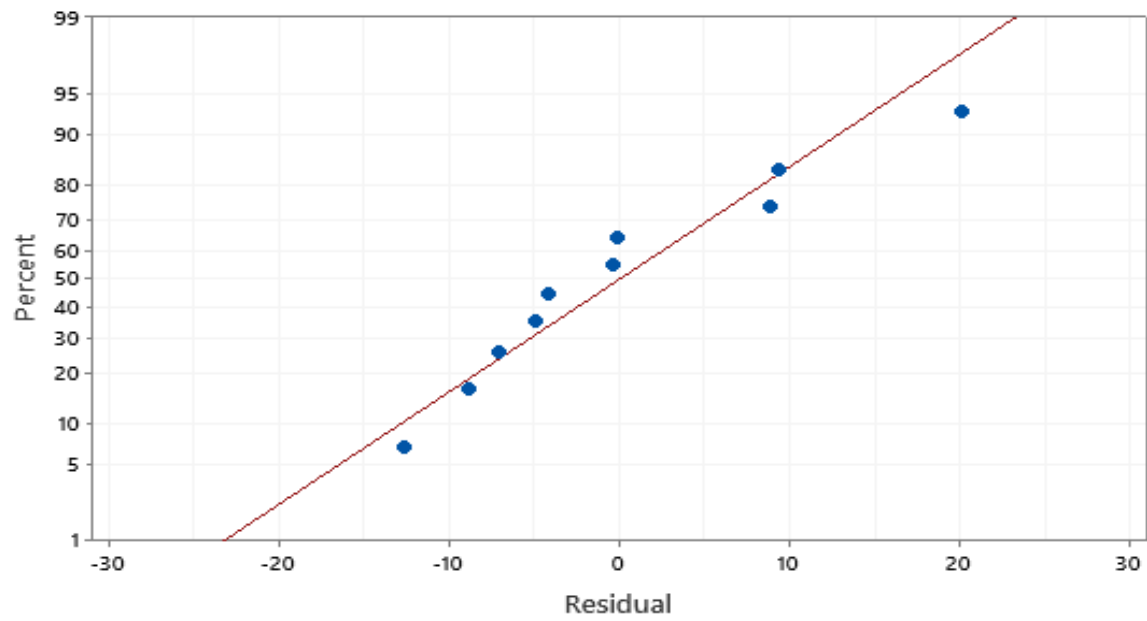
$$\hat{\beta}_0 = \bar{y} - \hat{\beta}_1 \bar{x}$$

b0

160.333

8x + 160.333

Normal Probability Plot
(response is Price (\$100))



Versus Fits
(response is Price (\$100))

