You wanted to develop a model to predict how long individuals will live. After consulting a number of physicians, you collected the age at death (*y*), the average number of hours of exercise per week ( x1), the cholesterol level ( *x2* ), and the number of points that the individual’s blood pressure exceeded the recommended value ( *x3* ). A random sample of 40 individuals was selected. The computer output of the multiple regression model is shown below.

**THE REGRESSION EQUATION IS**

*y* = 55.8 +1.79*x*1− 0.021*x*2− 0.016*x*3

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Predictor*** | *Coef* | *StDev* | *T* |  |
| Constant | 55.8 | 11.8 | 4.729 |  |
| X1 | 1.79 | 0.44 | 4.068 |  |
| X2 | -0.021 | 0.011 | -1.909 |  |
| X3 | -0.016 | 0.014 | -1.143 |  |

S = 9.47 R-Sq = 22.5%

**ANALYSIS OF VARIANCE**

*Source of Variation df SS MS F*

Regression 3 936 312 3.477

Error 36 3230 89.722

Total 39 4166