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| --- | --- |
| **Fertilizer** | **Yield** |
| 0 | 6 |
| 0 | 9 |
| 20 | 19 |
| 20 | 24 |
| 40 | 32 |
| 40 | 38 |
| 60 | 46 |
| 60 | 50 |
| 80 | 48 |
| 80 | 54 |
| 100 | 52 |
| 100 | 58 |

1. When applied a quadratic term on fertilizer and performed the quadratic regression analysis, what is *b*2?

a) 6.6429

b) 0.8950

c) -0.00407

1. Is the curvilinear effect significant?

a) Yes

b) No

c) Not enough information to determine

1. Predict the average yield of tomatoes (in pounds) for a plot that has been fertilized with 70 pounds per 1,000 square feet.

a) 89.393

b) 69.293

c) 49.203

1. When performed a natural logarithm transformation of the response variable (yield), what is *b*1?

a) 2.475

b) 0.01855

c) 0.2475

1. When performed a residual analysis of the results, does the model fit the data adequately?

a) Yes

b) No

c) Not enough information to determine

1. When performed a square-root transformation of the explanatory variable (fertilizer), what is *b*1?

a) 4.66613

b) 0.56853

c) 5.06852

1. Compare this model (square-root) with the natural logarithm model, which model would you choose?

a) Logarithm model

b) Square-root model

c) No difference in their results