JMP Analysis of Reaction Rate (Fit Y by X)

Bivariate Fit of ReactRate By Temp

![Graph showing ReactRate vs Temp with linear fit line]

**Linear Fit**
ReactRate = -7.6 + 0.148 Temp

**Summary of Fit**
- RSquare: 0.711538
- RSquare Adj: 0.689349
- Root Mean Square Error: 2.066212
- Mean of Response: 7.2
- Observations (or Sum Wgts): 15

**Lack Of Fit**
- Source: Lack Of Fit
  - DF: 1
  - Sum of Squares: 7.500000
  - Mean Square: 7.50000
  - F Ratio: 1.8750
- Source: Pure Error
  - DF: 12
  - Sum of Squares: 48.000000
  - Mean Square: 4.00000
  - Prob > F: 0.1960
- Source: Total Error
  - DF: 13
  - Sum of Squares: 55.500000
  - Mean Square: 0.1960
  - Max RSq: 0.7505

**Analysis of Variance**
- Source: Model
  - DF: 1
  - Sum of Squares: 136.900000
  - Mean Square: 136.900
  - F Ratio: 32.0667
- Source: Error
  - DF: 13
  - Sum of Squares: 55.500000
  - Mean Square: 4.269
  - Prob > F: <.0001
- Source: C. Total
  - DF: 14
  - Sum of Squares: 192.400000
  - Mean Square: <.0001

**Parameter Estimates**
- Term: Intercept
  - Estimate: -7.6
  - Std Error: 2.667468
  - t Ratio: -2.85
  - Prob>|t|: 0.0137
- Term: Temp
  - Estimate: 0.148
  - Std Error: 0.026136
  - t Ratio: 5.66
  - Prob>|t|: <.0001
Bivariate Fit of ReactRate By C

Linear Fit
ReactRate = 7.2 + 3.7 C

Summary of Fit

RSquare 0.711538
RSquare Adj 0.689349
Root Mean Square Error 2.066212
Mean of Response 7.2
Observations (or Sum Wgts) 15

Lack Of Fit

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<th>Source</th>
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<th>Mean Square</th>
<th>F Ratio</th>
<th>Prob &gt; F</th>
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Analysis of Variance

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Parameter Estimates

| Term  | Estimate | Std Error | t Ratio | Prob>|t| |
|-------|----------|-----------|---------|-----|---|
| Intercept | 7.2       | 0.533494  | 13.50   | <.0001 |
| C       | 3.7       | 0.653394  | 5.66    | <.0001 |