

Calc1Sheet

0.56
-17.78
20.00

0.56
-18.48

| Count | Degree F x | Degree C y | Error | Measurement y' |
|-------|---------------|---------------|--------|-------------------|
| 1 | 32.00 | 0.00 | 18.17 | 18.17 |
| 2 | 37.00 | 2.78 | 17.72 | 20.50 |
| 3 | 42.00 | 5.56 | 0.79 | 6.34 |
| 4 | 47.00 | 8.33 | 3.58 | 11.91 |
| 5 | 52.00 | 11.11 | -2.04 | 9.07 |
| 6 | 57.00 | 13.89 | -12.10 | 1.79 |
| 7 | 62.00 | 16.67 | 4.71 | 21.38 |
| 8 | 67.00 | 19.44 | -18.59 | 0.86 |
| 9 | 72.00 | 22.22 | 11.18 | 33.41 |
| 10 | 77.00 | 25.00 | -2.83 | 22.17 |
| 11 | 82.00 | 27.78 | 3.07 | 30.85 |
| 12 | 87.00 | 30.56 | -15.97 | 14.58 |
| 13 | 92.00 | 33.33 | 12.35 | 45.69 |
| 14 | 97.00 | 36.11 | -7.08 | 29.04 |
| 15 | 102.00 | 38.89 | -6.19 | 32.70 |
| 16 | 107.00 | 41.67 | -14.31 | 27.35 |
| 17 | 112.00 | 44.44 | 0.64 | 45.09 |
| 18 | 117.00 | 47.22 | 0.49 | 47.71 |
| 19 | 122.00 | 50.00 | -15.43 | 34.57 |
| 20 | 127.00 | 52.78 | 0.13 | 52.91 |
| 21 | 132.00 | 55.56 | 11.87 | 67.43 |
| 22 | 137.00 | 58.33 | -1.52 | 56.82 |
| 23 | 142.00 | 61.11 | -13.94 | 47.17 |
| 24 | 147.00 | 63.89 | -8.57 | 55.32 |
| 25 | 152.00 | 66.67 | -1.46 | 65.20 |
| 26 | 157.00 | 69.44 | -0.08 | 69.36 |
| 27 | 162.00 | 72.22 | -11.11 | 61.11 |
| 28 | 167.00 | 75.00 | -1.99 | 73.01 |
| 29 | 172.00 | 77.78 | -6.83 | 70.95 |
| 30 | 177.00 | 80.56 | 2.39 | 82.94 |
| 31 | 182.00 | 83.33 | -11.78 | 71.55 |
| 32 | 187.00 | 86.11 | 3.59 | 89.70 |
| 33 | 192.00 | 88.89 | -1.90 | 86.99 |
| 34 | 197.00 | 91.67 | 18.51 | 110.18 |
| 35 | 202.00 | 94.44 | 5.04 | 99.48 |

Calc1Sheet

| | | | | |
|----|--------|--------|-------|--------|
| 36 | 207.00 | 97.22 | 12.73 | 109.96 |
| 37 | 212.00 | 100.00 | 8.52 | 108.52 |

= Slope
 = Intercept
 = Magnitude of Noise

= Calculated Slope $(SxSy-nSyx)/(Sx*Sx-n*Sxx)$
 = Calculated Intercept $(Sy-m*Sx)/n$

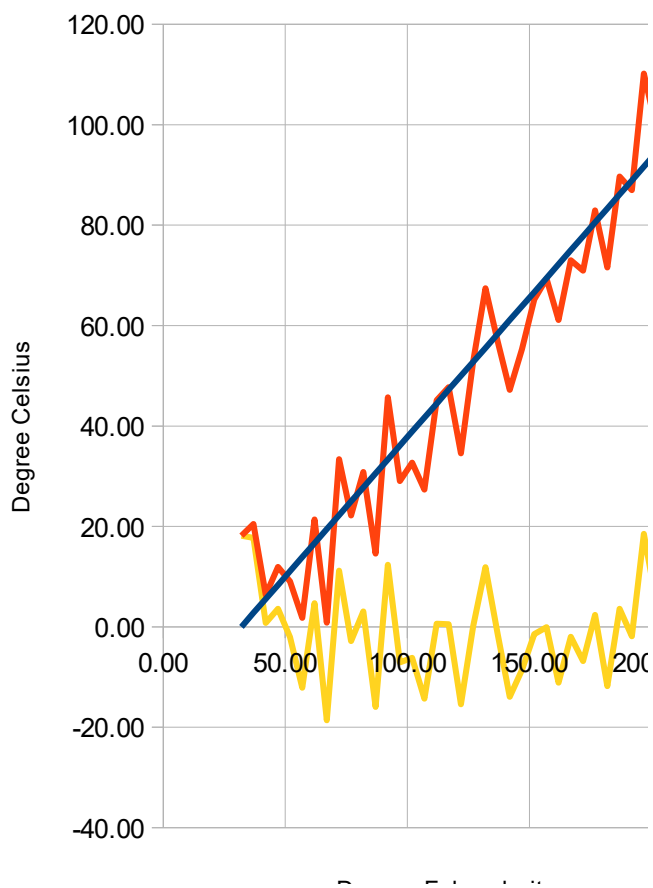
= Sum_x

| Derived x*y' | Derived x*x |
|-----------------|----------------|
| 581.32 | 1024.00 |
| 758.54 | 1369.00 |
| 266.36 | 1764.00 |
| 559.97 | 2209.00 |
| 471.58 | 2704.00 |
| 101.75 | 3249.00 |
| 1325.46 | 3844.00 |
| 57.47 | 4489.00 |
| 2405.20 | 5184.00 |
| 1707.25 | 5929.00 |
| 2529.55 | 6724.00 |
| 1268.67 | 7569.00 |
| 4203.15 | 8464.00 |
| 2816.41 | 9409.00 |
| 3335.66 | 10404.00 |
| 2926.78 | 11449.00 |
| 5049.97 | 12544.00 |
| 5582.49 | 13689.00 |
| 4217.90 | 14884.00 |
| 6719.53 | 16129.00 |
| 8900.12 | 17424.00 |
| 7783.88 | 18769.00 |
| 6698.83 | 20164.00 |
| 8132.46 | 21609.00 |
| 9911.04 | 23104.00 |
| 10890.02 | 24649.00 |
| 9900.16 | 26244.00 |
| 12192.97 | 27889.00 |
| 12203.08 | 29584.00 |
| 14681.05 | 31329.00 |
| 13022.27 | 33124.00 |
| 16773.32 | 34969.00 |
| 16701.67 | 36864.00 |
| 21704.59 | 38809.00 |
| 20095.17 | 40804.00 |

4514.00 = Sum_x
 1831.78 = Sum_y'
 282243.84 = Sum_xy'
 656158.00 = Sum_x2

Theory vs. Data

Temperature Conversion



| | |
|----------|----------|
| 22761.08 | 42849.00 |
| 23007.09 | 44944.00 |

Degree Fahrenheit

ta

ersion

