**The Trapezoidal Rule Redux**

The homework was to solve for the approximate integral of *f(x) = x+2\*x\*cos(x2)* given the limits 1<x<5 and that there are 16 Divisions.

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| The Trapezoidal Rule Redux | | |
| Lower Limit(a) | Upper Limit(b) | Divisions(N) |
| 1 | 5 | 16 |
|  |  |  |
| X | F(x) | Delta X |
| 1.00 | 2.08 | 0.25 |
| 1.25 | 1.27 |  |
| 1.50 | -0.38 |  |
| 1.75 | -1.74 | Sum of all f(x)\*dx |
| 2.00 | -0.61 | 13.26 |
| 2.25 | 3.79 |  |
| 2.50 | 7.50 | (f(a)+f(b))\*-dx/2 |
| 2.75 | 4.33 | -2.124079091 |
| 3.00 | -2.47 |  |
| 3.25 | 0.52 | Approximate Integral |
| 3.50 | 10.15 | 11.14 |
| 3.75 | 4.31 |  |
| 4.00 | -3.66 |  |
| 4.25 | 10.25 |  |
| 4.50 | 6.03 |  |
| 4.75 | -3.24 |  |
| 5.00 | 14.91 |  |