|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Number of intervals | Height of an interval | Values using standard coefficients | Values using my coefficients: | Rms error |
| 1 | X1-X0/1 | 37.2544 | 66.9014 | 29.6470 |
| 2 | X1-X0/2 | 36.9559 | 56.0565 | 15.2464 |
| 4 | X1-X0/4 | 36.945 | 52.0268 | 10.2792 |
| 8 | X1-X0/8 | 36.9445 | 49.9752 | 7.2983 |
| 16 | X1-X0/16 | 36.9445 | 48.9130 | 6.7898 |

Since we have standard coefficients and answer using those coefficients will be correct. We will use multiples of those coefficients because it won’t affect trend of graph. For example when c1=1/6, c2=2/6… these are proven values of coefficients, I will have new coefficients i.e. c1=2\*c1 proven …. If c1=1/6 my coefficient corresponding to c1 will be 2\*1/6=2/6 and same for all coefficients.

Here is the graph having rms error on y axis and width on x axis: