n=3:

when:

for and:

*1st order:*

*2nd order:*

n=4:

1st order:

2nd order:

3rd order:

This can be optimized in *Sympy:*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 0 | 1 | 2 | 3 |
| *1* |  |  |  |  |
| *2* |  |  |  |  |
| *3* |  |  |  |  |
| *4* |  |  |  |  |

2-term (Y\_max = 0.740):

3-term (Y\_max = 1.009):

4-term (Y\_max = 1.876):

How much did we win?

Y2 0.740

Y3 1.009

Y4 1.876