n=3:

when:

for and:

*1st order:*

*2nd order:*

n=4:

1st order:

2nd order:

3rd order:

This can be optimized in *Sympy:*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | -2 | -1 | 0 | 1 | 2 |
| *2* |  |  |  |  |  |
| *3* |  |  |  |  |  |
| *4* |  |  |  |  |  |
| *5* |  |  |  |  |  |