

# **User Guide**

## **Horner's method**

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Version 0.1.1

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## Document Revisions

Date	Version Number	Document Changes
05/11/2020	0.0.1	Initial Draft
10/11/2020	0.0.2	Implement Horner's method
12/11/2020	0.0.3	Create main to get data from the user
13/11/2020	0.0.4	Bug fix
1/12/2020	0.1.0	Implement a polynomial user interface
6/12/2020	0.1.1	Bug fix

## Introduction

The software makes it possible to evaluate polynomials according to Horner's method.

Our purpose in this guide is to explain the use of the application and the requirements that the system requires in order for you to use and enjoy the software.

This software does not require preknowledge and is suitable for use by anyone who is interested in it.

## Process/WorkFlow

In order to use the software you will need to provide the following data:

- 1) Degree of the polynomial ( $n$ ).
- 2) Polynomial coefficients ( $a_0, \dots, a_n$ ).
- 3) Required value ( $x_0$ ).

### Special requirements:

- If there is no coefficient for a certain degree you are required to enter the polynomial value to be 0
- For the degree ( $n$ ) you are required to enter an integer value.
- For the coefficients of the polynomial ( $a_0, \dots, a_n$ ) and for the required value ( $x_0$ ) any real number will be correct.
- The software only accepts numbers, characters cannot be entered.

### Example:

```
Please enter the degree of the polynomial: 4
a4: 2
a3: 0
a2: -3
a1: 3
a0: -4
Please enter x0: -2
Value of polynomial is: 10.0
```

### Software requirements:

- Python version: 3.6 and up.
- Packages and frameworks: numpy, matplotlib.

### Our software recommendations:

- Ide/Editors: pycharm & jupyter notebook.
- OS: unix base (linux distribution, macOS).

## Appendices

[Jupyter notebook](#) (You can use this run example)

[Source of information](#) (pages 91-95)

## Summery

We developed the software to evaluate polynomials using Horner's method. You can use the software according to the guide and if you encounter a problem you are welcome to open a new issue in [GitHub](#).