

Ex1

Polynom

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descreption

This project represents monomial, polynomial with many functions and operations

Monom class

Use a monom from the format of ax^b . (**a must be a (double) number**

And b must be every (integer)number greater and equal to 0)

Note: We assumed that the input is valid
 ax^b

The class monom supports some functions as

- add=>adding two monoms if they have the same power
- derivative: computing the derivative of a monom
- f(x): compute the monom in a given number
- multiply: multiple between our monom and giving monom
- is equal: checks if the two monom have the same coeff and power
- is zero:checks if the coeff is zero(the monom is zero)

Polynom class

Use a ploynom from the format of $ax_1^b + ax_2^b + \dots + ax_n^b$. (**a must be a (double) number**

And b must be every (integer)number greater and equal to 0)

Note: We assumed that the input is valid
 $ax_1^b + ax_2^b + \dots + ax_n^b$
`polynom (string):every input is valid(ax^b) without "*"`

The class polynom supports some functions as:

- add - there is two options to add function add Monom/Polynom(using Polynom_able) ,the monom function adds monom to our polynom and the polynom function adds polynom to our polynom.
- Derivative: compute the derivative of the polynom without changing the current polynom(it puts the derivative in a new polynom)
- f(x): computes the polynom in a given number
- multiply: multiplies two polynoms
- subtract: subtracts two polynoms
- root
- area: computing the area of the polynom in a giving eps
- is equal: checks if two polynoms are equal
- is zero: checks if every coeff of the monoms in the polynom are 0
- polynom(string): every input is valid (ax^b) without "*"

Example run

To show the polynom graph you must type "Graph 'name'=new Graph(put your polynom name,from(double x1),to (double x2);

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'name'=setVisible(true);"
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Example: "Graph 'name'=new Graph(p,-5,5);

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'name'=setVisible(true);"
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