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Q1

The part of converting the base 10 number to binary representation

* Number=((-1).^(s))\*(2.^(c-127))\*(1+f)
* Is the main concept that I convert the base 10 number to its binary representation.
* s is the first bit that represent the sign
* 0=positive and 1=negative
* C is the power multiplied of the number which is represented by the following 8 bits after added by 127
* F is the decimal part of the base 10 number

The part of converting the binary representation to base 10 number

* The first bit determine the sign of the number
* The following 8 bits represent the power multiplied by the number
* The following 23 bits represent the floating part of the number
* For loop and while loop are used to solved the number

Result are proven to be correct by comparing the own result

Q2

* The line of electric field is represented by line and its direction also represented by arrow
* Arrow are drawn by using the method of rotation determinant
* Result are proven to be correct by observing the graph

Q3

* Bisection method is used to solve those roots and three functions are used
* Interval to test is calculated before and set to find the root
* And the smallest positive root and the largest negative root can be found by setting two interval
* Result are proven to be correct by drawing out the graph and observing

Q4

* Formula are simplified by calculating and used to represent the L1, L2 ,L3
* Bisection method are used to solved the three ratio distance.
* Result are proven to be correct by determining the ratio logically