**Logarithm Description:**

The logarithm in mathematics is the reverse or inverse of another function. We can find logarithm of a number ‘x’ that is it is the exponent of the number ‘b’ which produces ‘x’. For instance if we take Logb(x) then the "logarithm to base 10" of 1000 is 3. So here ‘b’ is base. When b=10 it is a common logarithm. In programming we can use logarithmic exponents because it simplifies complex mathematical calculations. Computer developers use logarithms in computer function formulas to create specific software program outcomes, such as the creation of graphs that compare statistical data.

Log10(1000)=3

The logarithm of a product is equal to the sum of individual factors of logarithm:

logb(xy)= logb(x)+ logb(x)

Domain : (0,∞)

Range:  (−∞,∞)

Logarithms are commonplace in scientific formulae, and in measurements of the complexity of algorithms and of geometric objects called fractals. I will add all the rules of logarithm.

**References:**

[1]"Logarithm", *En.wikipedia.org*, 2019. [Online]. Available: https://en.wikipedia.org/wiki/Logarithm. [Accessed: 06- Jul- 2019].

[2]*Techwalla*, 2019. [Online]. Available: https://www.techwalla.com/articles/uses-of-logarithms-in-computers. [Accessed: 06- Jul- 2019].