PROBLEM 1

NIKITHA PAPANI (40070809)

F7: a^b^x

1.Introduction

An exponential function is one of the most important and the most commonly used function in mathematics in these functions, the real variable is considered as the exponent. Exponential function can be described in two ways: Growth or Decay.

f(x): a^b^x is an exponential function. Here, a and b are two real constants and x is a real variable. This function can be calculated by first calculating the value of a^b and then computing this value with power x.

2. Domain and Co-Domain

For this function,

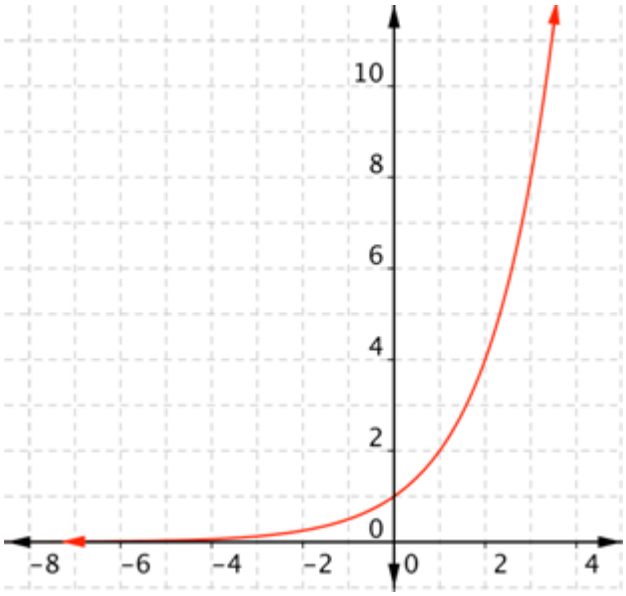
Domain = set of all real numbers.

Co-Domain = set of all possible real numbers.

3. Characteristics

The value of an exponential function increases when we keep adding the value 1 to the real variable. In a similar way, the value of function decreases in every half time 1 is added to the real variable x.

4. Graph



5. References

1.NyKamp DQ," The exponential function." http://mathinsight.org/exponential_function.

2. Graph taken from : http://www.montereyinstitute.org