**Definition of Logarithm;**

“log base *b* of *a* is *c*” “base to power is ”

**Properties of Logarithms and Corresponding Properties of Exponents**

| LOGARITHMIC PROPERTY | EXPONENTIAL PROPERTY |
| --- | --- |
|  |  |
|  |  |

**Cancellation Properties**

Log Cancels Exponent: since

Exponent Cancels Log: since

**Laws of Logarithms and Corresponding Laws of Exponents**

| LOGARITHMIC LAW | EXPONENTIAL LAW |
| --- | --- |
|  |  |
|  |  |
|  |  |

**Change of Base**

**Frequently Used Logarithms**

Common Log (base ):

Natural Log (base *e*):

**Domain of a Logarithmic Function**

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