$= -x, when\ x < 0.$

Reciprocal Function:- $f(x) = \frac{1}{x}$.

Signum Function:- $f(x) = \frac{|x|}{x} = 1, when\ x > 0$

$= 0, when\ x = 0$

$= -1, when\ x < 0.$

Square Root Function:- $f(x) = \sqrt{x}$.

Step/Box/Greatest Integer Function:- $f(x) = [x]$. $e.g.\ [2.01] = 2, [2.9] = 2.$

Exponential Function:- $f(x) = e^x$.

Logarithmic Function:- $f(x) = \log x$.

Polynomial Function:- $f(x) = a_0x^n + a_1x^{n-1} + \cdots \ldots \ldots \ldots + a_{n-1}x^1 + a_n$.

Rational Function:- $f(x) = \frac{p(x)}{q(x)}, where\ p(x)\ \&\ q(x)\ are\ polynomials\ and\ q(x) \neq 0.$

Trigonometric Function:- $f(x) = \sin x, \cos x, \tan x\ \ etc.$

Periodic Function:- $A\ function\ f(x)\ is\ said\ to\ be\ periodic\ with\ period\ T,$

$$if\ f(x + T) = f(x)\ \forall x.$$

Inverse Function:- $If\ f(y) = x, then\ y = f^{-1}(x).$

Even Function:- $A\ function\ f(x)\ is\ said\ to\ be\ even\ if\ f(-x) = f(x)\ \forall x.$

Odd Function:- $A\ function\ f(x)\ is\ said\ to\ be\ odd\ if\ f(-x) = -f(x)\ \forall x.$