

# COMPUTER APPLICATIONS

## MATHEMATICAL FUNCTIONS

<u>FUNCTION</u>	<u>SYNTAX</u>	<u>RETURN DATA TYPE</u>	<u>EXAMPLE</u>	<u>DESCRIPTION</u>
min(a,b)	Math.min(a,b)	int/long/float/ double	int x = Math.min(5,6); O/P : 5	Returns the smallest number.
max(a,b)	Math.max(a,b)	int/float/long/ double	int x = Math.max(-3,-2) O/P : -2	Returns the largest number.
sqrt(a)	Math.sqrt(a)	double	double x = Math.sqrt(9); O/P : 3.0	Returns the square root.
cbrt(a)	Math.cbrt(a)	double	double x = Math.cbrt(-8); O/P: -2.0	Returns the cube root.
pow(a,b)	Math.pow(a,b)	double	double x = Math.pow(5,3); O/P : 125.0	Returns the value of a <sup>b</sup> .
abs(a)	Math.abs(a)	int/long/float /double	int x = Math.abs(-9); O/P : 9	Returns the absolute.
round(a)	Math.round(a)	int/long	int x = Math.round(-5.8) ; O/P : -6	Returns the rounded value to the nearest whole number.
rint(a)	Math.rint(a)	double	double x = Math.rint(5.6); O/P : 6.0  -2.5 is -2 1.5 is 2.0 2.5 is 2.0	Returns nearest integer of a fractional number. All 0.5, 1.5 rounds off to the nearest even value.
log(a)	Math.log(a)	double	double x =Math.log(6.25); O/P : 1.8325	Returns th value of a natural logarithm.
random()	Math.random()	double	double x = Math.random(); O/P : 0.1	Returns a random number between 0 & 1.

ceil(a)	Math.ceil(a);	double	double x = Math.ceil(-8.5); O/P : -8.0 8.5 will be 9.0 6.25 will be 7.0	Returns a whole number greater than or equal to the number.
floor(a)	Math.floor(a);	double	double x = Math.floor(8.9); O/P : 8.0 -6.5 will be -7.0 6.25 will be 6.0	Returns a whole number, down to the nearest integer.
exp(a)	Math.exp(a)	double	double x = Math.exp(6.25); O/P : 518.0128	Returns exponential value - $e^a$
sin(a) / cos(a) / tan(a)	Math.sin(a); Math.cos(a); Math.tan(a);	double	Refer Page 63.	Returns Sine/Cosine/ Tangent of an angle.

\*Refer TB & CW for more examples.