**Trigonometric functions**

Trigonometry always plays a major role in mathematics, helping us better understand the angle and angle sides. This function gives the relation between an angle of a right triangle and the ratio of two side lengths. The basic trigonometric functions are sine(), cos(), tan(), etc.

Few trigonometric functions used in data science are explained here:

**math.acos(X)** - returns the arc cosine at X. The result will be in radians, between 0 and pi.

**math.asin(X)** - returns the arc-sine at X. The result will be in radians between -pi/2 and pi/2.

**math.atan(X)** - returns the arc-tangent of X. The result will be in radians between -pi/2 and pi/2.

**math.atan2(y, X)** - returns atan(y / X). The result will be in radians between -pi and pi.

**math.cos(X)** - returns the cosine of X. The argument should be passed in radians.

**math.dist(p, q)** - returns the Euclidean distance between the two passed arguments p and q, each passed as lists. The function is approximately equal to: sqrt(sum((pX - qX) \*\* 2.0 for pX, qX in zip(p, q)))

**math.hypot(\*coordinates)** - returns the Euclidean norm, computed using the formula sqrt(sum(X\*\*2 for X in coordinates)). This specifies the length of the vector from the origin to the point passed as arguments.

**math.sin(X)** - returns the sine of X. The input argument should be passed in radians.

**math.tan(X)** - returns the tangent of X. The input argument should be passed in radians.