| **Module** | **Commonly Used Methods** | **Examples** |
| --- | --- | --- |
| **math** | - **math.sqrt(x)**: Returns the square root of x. | **math.sqrt(16)** returns **4.0** |
|  | - **math.ceil(x)**: Returns the smallest integer >= x. | **math.ceil(4.3)** returns **5** |
|  | - **math.floor(x)**: Returns the largest integer <= x. | **math.floor(4.9)** returns **4** |
|  | - **math.sin(x)**: Returns the sine of x in radians. | **math.sin(math.pi / 2)** returns **1.0** |
|  | - **math.cos(x)**: Returns the cosine of x in radians. | **math.cos(0)** returns **1.0** |
|  | - **math.log(x)**: Returns the natural logarithm of x. | **math.log(10)** returns **2.302585092994046** |
|  | - **math.exp(x)**: Returns e raised to the power of x. | **math.exp(1)** returns **2.718281828459045** |
| **random** | - **random.random()**: Returns a random float [0.0, 1.0). | **random.random()** returns a random float between 0 and 1 |
|  | - **random.randint(a, b)**: Returns a random int [a, b]. | **random.randint(1, 10)** returns a random int between 1-10 |
|  | - **random.choice(seq)**: Returns a random element from seq. | **random.choice([1, 2, 3, 4])** returns a random element |
|  | - **random.shuffle(lst)**: Shuffles the elements of lst. | **random.shuffle([1, 2, 3, 4])** shuffles the list in-place |
|  | - **random.sample(pop, k)**: Returns k unique elements. | **random.sample([1, 2, 3, 4], 2)** returns 2 unique elements |
| **datetime** | - **datetime.datetime.now()**: Returns current date & time. | **datetime.datetime.now()** returns current date and time |
|  | - **datetime.datetime(year, month, day)**: Creates datetime. | **datetime.datetime(2023, 7, 1)** creates a datetime object |
|  | - **datetime.strftime(format)**: Formats datetime as string. | **datetime.strftime("%Y-%m-%d")** formats date as "YYYY-MM-DD" |
|  | - **datetime.strptime(date\_string, format)**: Parses string. | **datetime.strptime("2023-07-01", "%Y-%m-%d")** parses string |
| **os** | - **os.getcwd()**: Returns current working directory. | **os.getcwd()** returns the current working directory |
|  | - **os.listdir(path)**: Returns list of files & dirs in path. | **os.listdir("/path/to/dir")** returns files & dirs in path |
|  | - **os.path.exists(path)**: Checks if path exists. | **os.path.exists("/path/to/file")** checks if file exists |
|  | - **os.path.join(path, \*paths)**: Joins path components. | **os.path.join("/path/to", "file.txt")** joins path & filename |
|  | - **os.mkdir(path)**: Creates a new directory. | **os.mkdir("/path/to/newdir")** creates a new directory |