

Define the 10 functions with the def and the lambda function in python?

It seems there might be a slight confusion in your question. It's not clear what you mean by "the lambda function." However, I assume you meant "lambda function." I'll provide you with examples of defining functions using `def` and `lambda` in Python.

Using `def` to Define Functions:

1. Addition Function:

```
```python
def add(x, y):
 return x + y
```
```

2. Subtraction Function:

```
```python
def subtract(x, y):
 return x - y
```
```

3. Multiplication Function:

```
```python
def multiply(x, y):
 return x * y
```
```

4. Division Function:

```
```python
def divide(x, y):
 return x / y
```
```

5. Square Function:

```
```python
def square(x):
 return x ** 2
```
```

6. Cube Function:

```
```python
def cube(x):
 return x ** 3
```
```

7. Factorial Function:

```
```python
def factorial(n):
 if n == 0 or n == 1:
 return 1
```

```
 else:
 return n * factorial(n - 1)
'''
```

### Using `lambda` to Define Functions:

#### 8. Power of Two using Lambda:

```
```python
power_of_two = lambda x: x ** 2
'''
```

9. Double using Lambda:

```
```python
double = lambda x: x * 2
'''
```

#### 10. Check Even using Lambda:

```
```python
is_even = lambda x: x % 2 == 0
'''
```

Def statement:

- The def statement is used to define a regular (named) function.
- It allows you to create a block of reusable code with a specific name.
- Functions defined using def can have multiple expressions/statements, a docstring, and can contain complex logic.

lambda function:

- The lambda keyword is used to create anonymous functions, also known as lambda functions.
- Lambda functions are often used for short-term operations where a full def statement is not necessary.
- They can take any number of arguments but can only have one expression.
- Lambda functions are commonly used in functional programming constructs like map, filter, and reduce.