

Higher Order Function  
≡ A function that returns  
another Function.

Can we return a function?

FCC an entity that can be

- Stored in a Variable
- Passed as a parameter to func
- returned from func

```
def gen-exp(n):  
    def exp(x):  
        return x**n  
    return exp
```

→ exp-5 = gen-exp(5) <sup>func</sup>

(x → x\*\*5)  
or  
def exp-5(x)  
 return x\*\*5

# Decorators

- ⇒ takes another function as argument
- ⇒ Adds extra functionality

```
def decor(func):
```

```
    def inner(*args):
```

```
        out = func(*args)
```

} extra  
logic

```
        return out
```

```
    return inner
```

```
@decor
```

```
def myfunc(*args):
```

```
    =====  
    =====  
    =====  
    =====
```

```
    return out
```