

Recursive Function in PHP



A recursive function in PHP is a function that calls itself. This technique is often used for solving problems that can be broken down into smaller, similar subproblems.

```
function data( ) {
```

```
// Code Statement
```

```
data();
```

```
}
```

```
data();
```

Factorial of Number

$$1=1 \longrightarrow 1$$

$$2=2*1 \longrightarrow 2$$

$$3=3*2*1 \longrightarrow 6$$

$$4=4*3*2*1 \longrightarrow 24$$

$$5=5*4*3*2*1 \longrightarrow 120$$

$$6=6*5*4*3*2*1 \longrightarrow 720$$

Factorial of Number

$$f(n) = n * f(n-1)$$

Find 5!

$$n=5$$

$$f(5) = 5 * f(5-1)$$

$$= 5 * f(4)$$

$$= 5 * 4 * f(4-1)$$

$$= 5 * 4 * f(3)$$

$$= 5 * 4 * 3 * f(3-1)$$

$$= 5 * 4 * 3 * f(2)$$

$$= 5 * 4 * 3 * 2 * f(2-1)$$

$$= 5 * 4 * 3 * 2 * f(1)$$

$$= 5 * 4 * 3 * 2 * 1$$

$$= 120$$