

Title: What is recursion / recursive function ?

Answer:

A function that calls itself is called a *recursive function*. In some ways, recursion is analogous to a loop. Both execute the same code multiple times, and both require a condition (to avoid an infinite loop, or rather, infinite recursion in this case). For example, the following loop:

```
var x = 0;
while (x < 10) { // "x < 10" is the loop condition
  // do stuff
  x++;
}
```

can be converted into a recursive function and a call to that function:

```
function loop(x) {
  if (x >= 10) // "x >= 10" is the exit condition (equivalent to "!(x < 10)")
    return;
  // do stuff
  loop(x + 1); // the recursive call
}
loop(0);
```

For example, here is a function that computes factorials recursively:

```
function factorial(n) {
  if ((n === 0) || (n === 1))
    return 1;
  else
    return (n * factorial(n - 1));
}
```

Tags: functions / methods, javascript