

Recursion \rightarrow Iteration

```
int PotenciaRec(int b, int n) {  
    int pot;  
    if (n == 0)  
        return 1;  
    if (n % 2 == 0) {  
        pot = PotenciaRec(b, n/2);  
        return pot * pot;  
    } else {  
        pot = PotenciaRec(b, (n-1)/2);  
        return pot * pot * b;  
    }  
}
```

Senne Pila

```
int PotenciaIter(int b, int n) {  
    if (n == 0) return 1;  
    int pot;  
    while (n != 0) {  
        if (n % 2 == 0) {  
            pot = pot * pot;  
            n = n/2;  
        } else {  
            pot = pot * pot * b;  
            n = (n-1)/2;  
        }  
    }  
    return pot;  
}
```

Ampla Pila

```
int PotenciaIter(int b, int n) {  
    stack<int> pila;  
    while (n != 0) {  
        pila.push(n);  
        n = n-1;  
    }  
    int pot = 1;  
    while (!pila.empty()) {  
        pot = pot * pila.top();  
        pila.pop();  
    }  
    return pot;  
}
```