

$\text{for } (i=0; i<10; i++)$
 $\text{printf}("%d\n", i);$

$i=0;$
 $\text{while } (i<10) \{$
 $\text{printf}("%d\n", i);$
 $i++;$
 $\}$

$i=0;$
 $\text{if } (i<10)$
 $\text{do } \{$
 $\text{printf}("%d\n", i);$
 $i++;$
 $\}$
 $\text{while } (i<10);$

Wenn Initialisierung
z.B. $i=10$ wäre

$\text{fib}(n) = \begin{cases} 1, & \text{wenn } n < 2 \\ \text{fib}(n-1) + \text{fib}(n-2) & \text{sonst} \end{cases}$

$\text{fib}(10)$
 $\text{fib}(9) + \text{fib}(8)$
 $\text{fib}(8) + \text{fib}(7) \quad \text{fib}(7) + \text{fib}(6)$
 \dots

| n | fib(n) |
|----|--------|
| 0 | 1 |
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 5 |
| 5 | 8 |
| 6 | 13 |
| 7 | 21 |
| 8 | 34 |
| 9 | 55 |
| 10 | 89 |

init: l.

$\text{fib num 2} = 1$
 $\text{fib num 1} = 1$
 $\text{fib } n = 1$

fib num 2
 fib num 1
 $\text{fib } n$

$\text{fib num 2} = \text{fib num 1}$
 $\text{fib num 1} = \text{fib } n$
 $\text{fib } n = \text{fib num 1} + \text{fib num 2}$