

```
library ieee;
use ieee.std_logic_1164.all;
entity laskuri is
    port(CLK, CLR:in std_logic; Q: out std_logic_vector(3 downto 0) );
end laskuri;
```

```
architecture toiminta of laskuri is
begin
    process (CLK, CLR)
        variable i:integer range 0 to 9;
    begin
        if CLK'event and CLK='0' then
            if(CLR='1') then i:=0;
            else
                if i<9 then i:=i+1;
                else i:=0;
                end if;
            end if;
            case i is
                when 0 => Q<="0000";
                when 1 => Q<="0001";
                when 2 => Q<="0010";
                when 3 => Q<="0011";
                when 4 => Q<="0100";
                when 5 => Q<="0101";
                when 6 => Q<="0110";
                when 7 => Q<="0111";
                when 8 => Q<="1000";
                when 9 => Q<="1001";
            end case;
        end if;
    end process;
end toiminta;
```