

```
module tryfact;

// define the function
function automatic int factorial (int n);
    return
        n == 0
        ? 1
        : factorial (n - 1) * n
    ;
endfunction: factorial

// test the function
initial begin
    logic ITER[0:7];
    foreach (ITER[n])
        $display("%0d factorial=%0d", n, factorial(n));
    end

endmodule: tryfact
```