Exercise: Control Structures

The factorial of an integer number n! is defined as:

$$n! = n \cdot (n-1) \cdot (n-2) \cdot ... \cdot 3 \cdot 2 \cdot 1$$

Find the first integer *n* for which the factorial n! is a 30 digit number (n!<1e30).

```
factorial=1;
n=1;
while factorial<1e30
    n=n+1;
    factorial=factorial*n;
end
n
```

```
n = 29
```