MATLAB: Recursion

Dmitry Adamskiy
adamskiy@cs.rhul.ac.uk
The n! Recursive function

```matlab
function fact = Nfactorial(n)
    if n == 1
        fact = 1;
    else
        fact = Nfactorial(n-1) * n;
    end
```
Exercises (1)

Without using recursion, write an iterative function that receives a character array as an input and outputs the reverse of that array. For example if your input is ‘hello’, the function must output ‘olleh’.

Start by typing:

```matlab
function rev = iter_rev(word)
```
Exercises (2)

Using recursion, write a recursive function that receives a character array as an input and outputs the reversed array.

Start by typing

```matlab
function rev = reverse(word)
```
Exercises (3)

Test both functions by typing in:

```python
>> A1 = iter_rev('')
>> A2 = iter_rev('a')
>> A3 = iter_rev('great')
>> B1 = reverse('')
>> B2 = reverse('b')
>> B3 = reverse('great')
```