

## PHYSICAL MODELING IN MATLAB

### EXERCISE 3.4

Write a script, called *series*, that computes the sum of the series given by  $A_{i+1} = A_i/2$  recursively.

The MATLAB script *sequence* contains:

```
% Exercise 3.4 - script series
%
% This script will sum the elements of the sequence computed
% recursively.
%
% To compute the (i+1)th element of the sequence use A(i+1) = A(i)/2
%
A = 1;
total = 1;
for i = 2:10
    A = A / 2;
    total = total + A;
end
ans = total
```

To run:

```
>> % call the script to compute the series recursively
>> series;
>> % The displayed values of A reflect the total
```