Instructor Solution

Contents

TEST, Exercise 3

```
if ~exist('____code____','var') ; clear ; end
format compact
more off
```

EXERCISE DESCRIPTION:

Write an extremely simple function `sqr` and test it.

Hints

- Use "New", "Function" to initialize the function. Then to keep it simple, get rid of all the comment junk. Just put in the essentials. Save the file as `sqr.m`.

- You can, and must, add comments to `sqr.m` when all works fine.

Additional file: sqr.m

```
function xSqr = sqr(x)

%
```

```matlab
% Function that returns the square of its input argument.
%
%                       xSqr = sqr(x)
%
% Input:
%
%     x: Can be any number or expression evaluating to a
%         number.
%
% Output:
%
%    xSqr: Square of x.
%

% set xSqr equal to the square of x
xSqr=x*x;
% don't forget the semicolon or results will be messy!

end
```

SOLUTION:

```matlab
% evaluate the square of 3
sqr(3)
```

```
ans =  9
```

```matlab
% evaluate the square of 4
sqr(4)
```

```
ans =  16
```

```matlab
% give variable x the value 5
myVar=5
% evaluate the square of the variable
sqr(myVar)
```

```
myVar =  5
ans =  25
```

```matlab
% show that help works for the function
help sqr
```

```
'sqr' is a function from the file /home/dommelen/work/
    tll/exercises/sqr.m

Function that returns the square of its input argument.

                        xSqr = sqr(x)

Input:

    x: Can be any number or expression evaluating to a
       number.

Output:

    xSqr: Square of x.
```