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# Instructor Solution

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### IMPORTANT:

Do not change **anything** in this header (besides your name and due date above as needed)!

Put your solution to the exercise completely at the end of this file.

## 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)

%
% 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:

```

% evaluate the square of 3
sqr(3)

ans =
     9

% evaluate the square of 4
sqr(4)

ans =
    16

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

myVar =
     5
ans =
    25

% show that help works for the function
help sqr

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.

```

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