

## Handling a function in Matlab

### 1. Defining functions

- Anonymous function: `funcName = @(inVar) funcExprs`
- Inline function: `funcName = inline(funcExprs, inVar1, inVar2, ...)`
- Using function: `function outVar = funcName(inVar1, inVar2, ...){ funcExprs }`

## Graphs of functions

### 1. Plotting single variable functions: `plot`

- Decorating options: color and marking, `linewidth`, `markersize`
- Multiple drawing: `hold on`, `hold off`, `drawnow`

### 2. Plotting 2-variable functions: `surf`, `mesh`

- How to use `meshgrid`
- Predefined grid for sphere: `sphere`

### 3. Drawing implicit graphs

- Implicit plots in 2d and 3d: `implicit`, `implicit3`
- Plotting contour lines: `contour`, `contour3`

### 4. Adding legends

- Titles, x and y-labels: `title`, `xlabel`, `ylabel`
- Adding texts: `text`
- Adding legends: `legend`

## Scatter plot and regression

### 1. Drawing scatter plot: `scatter`

### 2. Finding regression line: `regress` (Need *Statistics and Machine Learning Toolbox*)

### 3. Drawing histogram: `histogram`