

## PHYSICAL MODELING IN MATLAB

### EXERCISE 1.1

Write a MATLAB expression for:

$$\frac{e^{-\left(\frac{x-\mu}{\sigma\sqrt{2}}\right)^2}}{\sigma\sqrt{2\pi}}.$$

Assume  $\mu$ ,  $\sigma$  and  $x$  already exist.

The MATLAB code is:

```
% define mu, sigma and x (choosing arbitrary values)
mu      = 2.2;
sigma   = 0.75;
x       = 0.5;
% create the expression
result = exp(-((x - mu)/(sigma * sqrt(2)))^2)/(sigma * sqrt(2*pi));
```