Problem 1.1 (Instructions)
This is an example usage of the template. In this problem we will use an inline python code. One very useful library is **numpy** and can be imported as shown: `import numpy as np`.

Problem 1.2 (Larger Python sections)
If we want to refer to a chunk of python code we can use the python environment.

```
import numpy as np

def random_number():
    return 4 # Chosen by fair dice roll :)

print(random_number())
```

Problem 1.3 (Reduce redundancy)
And as we like to make life easier for the people who have to correct our solutions we always should append the original python source files (as they are handed in as well) at the end of the document. This can be done by simply referring to a python file with the command **pythonexternal**:

```
import numpy as np
import matplotlib.pyplot as plt

data = np.random.rand(100)

plt.plot(data, 'ro', label='random samples')
plt.ylabel('y-axis')
plt.xlabel('x-axis')
plt.legend(loc=1)

plt.show()
```