Exercise

```
import numpy as np
```

Exercise 1:

- **Exercise**: Consider two vectors

$$y = (1, 7, 1, 2, 8, 2), \quad x = (4, 6, 2, 7, 8, 2)$$

  Calculate their inner product:

$$y_1 x_1 + y_2 x_2 + y_3 x_3 + y_4 x_4 + y_5 x_5 + y_6 x_6$$

Do this using *vectorized* operations. Use `np.array()`. The inner product is 130

Exercise 2:

- **Exercise**: Provide two ways of extracting the 2nd and 5th elements of this vector

Python

```
x = np.array([4, 7, 8, 1, 2])
```

Exercise 3:

- **Exercise**: Extract all elements from the previous vector between 5 and 8 (inclusive).