Exercise

- Complete the output from the following program.

```python
1 def display_intro():
2     message = "Game of Nim by Adriana Ferraro"
3     length = len(message)
4     symbols = "*" * length
5     print(symbols)
6     print(message)
7     print(symbols)
8     message = "bye bye!"
9     display_intro()
10    print(message)
```

****************************
Game of Nim by Adriana Ferraro
****************************
Exercise

- Complete the get_discount() function which returns the discount amount (a float number rounded to 2 decimal places). The function is passed two arguments, the amount and the discount rate.

```python
def get_discount(amount, rate):
    discount_message = "Discount: $" + str(get_discount(234, 5))
    print(discount_message)
    discount_message = "Discount: $" + str(get_discount(125, 15))
    print(discount_message)

Discount: $11.7
Discount: $18.75
Exercise

- Complete the `get_discount_message()` function which returns a string made up of the rate of discount, followed by the string "% Discount: $", followed by the discount amount. The function has two parameters, the discount amount and the discount rate.

```python
def get_discount_message(discount, rate):

message = get_discount_message(11.7, 5)
print(message)

message = get_discount_message(98.55, 15)
print(message)
```

5% Discount: $11.7
15% Discount: $98.55
Exercise

- Complete the `print_docket()` function which prints the sales docket information (the format should be as shown in the output shown). The function is passed two arguments, the cost price and the discount rate. Your function code MUST make a call to both the functions: `get_discount()`, `get_discount_message()`.

```python
def get_discount(amount, rate):
    # code from slide 23

def get_discount_message(discount, rate):
    # code from slide 24

def print_docket(cost, discount_rate):
    print_docket(234, 5)
    print()
    print_docket(657, 15)
```

Original price $234
5% Discount: $11.7
Price $222.3

Original price $657
15% Discount: $98.55
Price $558.45
The following program prompts the user for a number of items to be packaged. Each box can hold 10 items. Any left over items require an extra box. The first 6 boxes cost $8 each and any boxes above the first 6, cost $5 each. The program executes as shown in the example outputs below. **Design the functions needed** to write this program and write the main code for the program.

<table>
<thead>
<tr>
<th>Enter number of items: 20</th>
<th>Enter number of items: 36</th>
<th>Enter number of items: 102</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items: 20</td>
<td>Items: 36</td>
<td>Items: 102</td>
</tr>
<tr>
<td>Boxes needed: 2</td>
<td>Boxes needed: 4</td>
<td>Boxes needed: 11</td>
</tr>
<tr>
<td>Cost: $16</td>
<td>Cost: $32</td>
<td>Cost: $73</td>
</tr>
</tbody>
</table>

Enter number of items: 65
Items: 65
Boxes needed: 7
Cost: $53
Exercise

- From the previous slide.

```python
#write the main code below
items_per_box = 10

Enter number of items: 102
Items: 102
Boxes needed: 11
Cost: $73
```
The following program has two errors. What are the errors? Write a correction for each error.

The desired output is shown below the program.

```python
def display_winner_details(winner, score):
    message = "*** " + winner.upper() + " (" + score + ") ***"
    print(message)

score = score + 50
display_winner_details("Jo Li", score)
print(score)
```

```plaintext
*** JO LI (50) ***
50
```