

This homework will give you practice writing and calling both void and value methods.

Write a Java program that gives an estimate to a customer on how much carpet would cost for a room. This program consists of:

- A method **printMenu()** that welcomes the user to the store and displays the menu for the following carpet types to the screen:

```

Welcome to the carpet store!
=== Carpet Types ===
1. Nylon: $5 per square foot
2. Polyester: $4 per square foot
3. Polypropylene: $3 per square foot
4. Acrylic: $6 per square foot
5. Wool: $12 per square foot

```

- A **main** method that calls the **printMenu()** method to display the menu and then prompts the user for their selection and their room dimensions and determines the cost by calling the **calculateCost()** method and then neatly prints everything at the end by calling **printReceipt()**.

```

Enter the number of the type of carpet would you like: 1

```

```

Great! Please enter the dimensions of your room (in ft):
Enter length: 10
Enter width: 12

```

- A method **calculateCost()** that receives the user's selection and the dimensions of their room and calculates and returns the cost.
- A method **printReceipt()** that prints the following information (carpet type, room dimensions, total cost, etc.) directly to an output file "**receipt.txt**"

```

=== Receipt ===
You chose option:
1. Nylon: $5 per square ft

Room dimensions: 10.0 x 12.0
Area: 120.0 square ft
=====
Total cost: $600.00
Thank you for shopping at the Carpet Store!

```