

```
# Travis Barrett
# 16 July 2024
# P5LAB
# User-defined functions
```

```
import random
```

```
#Function to determine change returned to customer
def disperse_change(change):
```

```
    if change == 0:
        print("No Change Due")
```

```
    #Calculate the amount of each coin needed
    #integer division - //
```

```
    num_dollars = change // 100
    change = change - (num_dollars * 100)
```

```
    num_quarters = change // 25
    change = change - (num_quarters * 25)
```

```
    num_dimes = change // 10
    change = change - (num_dimes * 10)
```

```
    num_nickles = change // 5
    change = change - (num_nickles * 5)
```

```
    num_pennies = change // 1
```

```
    #Display coins owed
```

```
    if num_dollars > 0:
        print(num_dollars, end=" ")
        if num_dollars == 1:
            print("Dollar")
        else:
            print("Dollars")
```

```
    if num_quarters > 0:
        print(num_quarters, end=" ")
        if num_quarters == 1:
            print("Quarter")
        else:
            print("Quarters")
```

```
    if num_dimes > 0:
        print(num_dimes, end=" ")
        if num_dimes == 1:
            print("Dime")
        else:
            print("Dimes")
```

```
    if num_nickles > 0:
        print(num_nickles, end=" ")
        if num_nickles == 1:
            print("Nickle")
        else:
            print("Nickles")
```

```
    if num_pennies > 0:
        print(num_pennies, end=" ")
        if num_pennies == 1:
            print("Penny")
        else:
            print("Pennies")
```

```
#Main Function
```

```
def main():
    # generate a random float number
    amount_owed = round(random.uniform(0.01, 100.00), 2)

    # Display the amount owed
    print(f"You owe ${amount_owed:.2f}")

    # Prompt user to enter float as the cash they will put into checkout machine
    amount_paid = float(input("How much cash will you put in the self_checkout?"))

    # Calculate change owed
    change_owed = amount_paid - amount_owed

    # Display change owed
```

```
print(f"Change is: ${change_owed:.2f}")  
print()
```

```
# Convert the change owed to an integer  
change_owed = round(change_owed * 100)
```

```
# call function and pass the change owed as a parameter  
disperse_change(change_owed)
```

```
#Call the main function  
main()
```