

## Recitation Week 3 Solutions

### Problem 1:

```
# Name: Asmit De
# Section: 001/002
# PSU ID: aud311
# Lab Assignment: Recitation Week 3 - Problem 1
# Date: 09/08/2016
# Description: Display a string entered by user

# Prompt the user to enter a string and save it in a variable
message = input('Please enter a string: ')

# Print the entered string
print('You entered:', message)
```

```
RESTART: C:/Users/aud311/OneDrive/PSU/TA/CMPSC 101 Introduction to Programming/
Recitations/RW2/problem1.py
Please enter a string: Hi there!
You entered: Hi there!
>>>
```

## Problem 2:

```
# Name: Asmit De
# Section: 001/002
# PSU ID: aud311
# Lab Assignment: Recitation Week 3 - Problem 2
# Date: 09/08/2016
# Description: Calculate sum, product and average of any three numbers
```

```
# Prompt the user to enter three numbers and save them in variables
```

```
print('Please enter three numbers:')
```

```
num1 = int(input())
```

```
num2 = int(input())
```

```
num3 = int(input())
```

```
# Calculate the sum, product and average
```

```
sum = num1 + num2 + num3
```

```
product = num1 * num2 * num3
```

```
average = sum / 3
```

```
# Print the result
```

```
print('The sum is:', sum)
```

```
print('The product is:', product)
```

```
print('The average is:', average)
```

```
RESTART: C:/Users/aud311/OneDrive/PSU/TA/CMPSC 101 Introduction to Programming/
Recitations/RW2/problem2.py
Please enter three numbers:
2
4
6
The sum is: 12
The product is: 48
The average is: 4.0
>>>
```

### Problem 3:

```
# Name: Asmit De
# Section: 001/002
# PSU ID: aud311
# Lab Assignment: Recitation Week 3 - Problem 3
# Date: 09/08/2016
# Description: Convert total seconds to hours, minutes and seconds
```

```
# Prompt the user to enter seconds
total_seconds = int(input('Please enter seconds: '))
```

```
# Calculate the hours minutes and seconds
hours = total_seconds // 3600
rem_seconds = total_seconds % 3600
minutes = rem_seconds // 60
seconds = rem_seconds % 60
```

```
# Print the result
print('You entered:', hours, 'hour(s)', minutes, 'minute(s) and', \
      seconds, 'second(s)')
```

```
RESTART: C:/Users/aud311/OneDrive/PSU/TA/CMPSC 101 Introduction to Programming/
Recitations/RW2/problem3.py
Please enter seconds: 4000
You entered: 1 hour(s), 6 minute(s) and 40 second(s)
>>>
```

#### Problem 4:

```
# Name: Asmit De
# Section: 001/002
# PSU ID: aud311
# Lab Assignment: Recitation Week 3 - Problem 4
# Date: 09/08/2016
# Description: Swap values between variables
```

```
# Prompt the user to enter two numbers and save them in variables
```

```
print('Please enter two numbers:')
```

```
num1 = input('num1 = ')
```

```
num2 = input('num2 = ')
```

```
# Perform the swap using a temporary variable
```

```
temp = num1    # <- This ensures that the value of num1 is not lost
```

```
num1 = num2
```

```
num2 = temp    # <- Restore the value of num1 into num2
```

```
# Display the contents of the variables after swap
```

```
print('\nAfter swapping:\nnum1 =', num1, '\nnum2 =', num2)
```

```
RESTART: C:/Users/aud311/OneDrive/PSU/TA/CMPSC 101 Introduction to Programming/
Recitations/RW2/problem4.py
```

```
Please enter two numbers:
```

```
num1 = 5
```

```
num2 = 10
```

```
After swapping:
```

```
num1 = 10
```

```
num2 = 5
```

```
>>>
```