

Pseudocode Problems Week 2

Instructions

- This week there are 4 problems for you to solve and write Pseudocode for.
- All 4 solutions should be on a single Notepad document and saved using your student number and name (e.g. NoelCarey_B000123456.txt)
- When writing your solutions, keep in mind the 5 standard guide points.
 1. Program explanation at the start.
 2. One statement per line.
 3. Use of white space and indentation.
 4. Capitalising of Key Words and good structure
 5. Correct logic and flow.
- Upload your single text file to the appropriate Moodle section.
- REMEMBER: your task here is to write Pseudocode and get the logic and structure of the program correct. You don't need to know all the nuts and bolts of a programming language.

Don't forget your program Structure Guide:

```
//Declare variables
//Get input from user
//Processing
//Output or Results
```

Question 1

Write a Pseudocode program that prints the **quotient** and **remainder** on dividing the constant **X** by the constant **Y**. X should be initialised to **5** and Y should be initialised to **3**. Your program should use two variables called **quotient** and **remainder** to store results and you should use a single *PRINT()* statement to print the result in the format:

```
X / Y = 1 and X % Y = 2
```

Question 2

Write a Pseudocode program to calculate an employee's *gross weekly pay*. The **input** to the program should be the **number of hours worked** and the **hourly rate of pay**. Your program output should look as follows and you should test your program using the values shown in the screenshot below:

```
Please input hourly rate: 9.6
Please input hours worked: 45
Hours worked = 45.0 hourly rate = 9.6 gross weekly = 432.0
```

Question 3

Write a Pseudocode program that **prompts** the user for *four integer values* and prints their *average*. Your program output should look as follows and you should use the test values shown in the screenshot.

```
Enter number 1: 1
Enter number 2: 2
Enter number 3: 3
Enter number 4: 4
Answer = 2.5
```

Question 4

Write a Pseudocode program that calculates the volume of a cylinder. Your program should **prompt** the user to enter the **radius** and **height** of the cylinder and should use a combination of **constants** and **variables** to calculate the volume. The following formula should be used to calculate the volume, *where V =volume, r =radius and h =height*:

$$V = \pi r^2 h$$

```
Enter radius: 2.5
Enter height: 11.5
Volume = 225.6875
```

Plagiarism

This assessment should be an individual piece of work. Any evidence of plagiarism will result in a grade of zero for all parties involved and will trigger the Universities plagiarism policy 3AS08 (see course coordination page).