Pseudocode Problems Week 1

Instructions

- This week there are 6 problems for you to solve and write Pseudocode for.
- All 6 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. Capitalisng 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 produces the output shown in *Figure 1* below.

```
Java Programming

Rocks
```

Figure 1

Question 2

Write a Pseudocode program that prints the answers to the following arithmetic expressions on **separate** lines. (Hint: Use PRINT NEW LINE)

NOTE: your program should print the linear expression **and** the result.

1. $4 \times 4 =$
2. $3 \times 7 + (-2 \times -8) =$
3. $\frac{(2 \times 5) - 6}{(4 \times 8) - (2 \times 3)} =$

Question 3

Write a Pseudocode program that uses two variables **number1** and **number2** to store the values **71** and **3.14**. Your program should print the values stored in **number1** and **number2** to the screen on separate lines as shown below in *Figure 2*.

```
number1 = 71
number2 = 3.14
```

Figure 2

Question 4

An employee receives an hourly rate of €9.80 and works 42 hours a week. Write a Pseudocode program that calculates the employees gross weekly wage and prints it to screen. **NOTE:** be very careful when choosing variable types and their names. The output should look like that shown in *Figure 3*.

```
Hourly rate is 9.8
Hours worked is 42
Gross weekly is 411.6
```

Figure 3

Question 5

Given the following function $f(x) = x^2 + 3x - 5$, write a Pseudocode program to evaluate $\boldsymbol{f(x)}$,$\boldsymbol{where\ x}$ = $\mathbf{4}$ and $\boldsymbol{f(x)}$,$\boldsymbol{where\ x}$ = $\mathbf{6}$. Your program should print the resulting arithmetic expressions and the final results. NOTE x^2 can be written as $(x * x)$