

C - Assignment 05 (100 pts)

Notes

Use the following instructions

- Create a `main()` program to test all the function
- You can include the prototypes, the function definitions and `main()` in 1 file
- Use good variable names and coding style
- Include some simple comments

Exercise 01 (10 pts)

Write a function `max2()` which takes 2 integers as parameters then returns the biggest of the two.

Exercise 02 (10 pts)

Write a function `max3()` which takes 3 integers as parameters then returns the biggest value.

Hint: use `max2()` from Exercise 01

Exercise 03 (10 pts)

Write a function `circleInformation()` which takes an integer radius as a parameter then prints out the perimeter and area of the circle.

Exercise 04 (20 pts)

Write a function `drawRectangle()` which receives 2 integers representing the width and height of a rectangle, then draws a rectangle using asterisks (use nested loops).

Example run:

```
drawRectangle(3, 4)
```

```
* * *
* * *
* * *
* * *
```

Exercise 05 (10 pts)

Update the function `drawRectangle()` from Exercise 04 to receive 1 character as an additional parameter. This character will be used to draw the rectangle.

Example run:

```
drawRectangle(3, 4, '@')
```

```
@ @ @  
@ @ @  
@ @ @  
@ @ @
```

Exercise 06 (20 pts)

Write a function `difference3()` which receives 3 variables of type `char` and returns `true` if the characters are spaced by 3. For example, a, d, g are spaced by 3. Same for i, l, and o.

Exercise 07 (20 pts)

Write a function `countDigits()` which receives an integer then returns the number of digits in that number.

For example, `countDigits(3826)` should return 4.

Hint: use a series of division by 10