

05/11/2018

**BLM1011**  
**Introduction to Computer Science**  
**Assignment - 1**  
**(Due 12/11/2018 - 23:59h)**

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**Please, do not forget to analyze your algorithm.**

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**Q1**

Design an algorithm which gives the output of a function  $f(x,n)$ .

$$f(x, n) = \frac{x}{1!} - \frac{x^3}{3!} + \frac{x^5}{5!} - \dots + \frac{x^{2n+1}}{(2n+1)!}$$

**Inputs:** x and n

**Output:**  $f(x,n)$

Example:

X: 2

N: 2

$f(x,n) = 112/120 = \underline{\underline{0.9333}}$

## Q2

Design an algorithm which finds the minimum and maximum 4-digit cube number.

**Output:** minimum 4-digit number  
Maximum 4-digit number

Cube Numbers : 8, 27, 64, 125, 216 ...

# BLM1011

## Specifications for Assignments

### Submission

- Assignments submitted after submission deadline (at most 2 days late) will be evaluated over 50. Do not send any e-mail 3 days after submission deadline.
- Collaboration on any assignment is strictly prohibited. Submitted assignments are automatically checked for similarities. Infractions will be given a zero for the entire assignment.
- Assignments **MUST** be submitted by e-mail. Every student must send his/her assignment to the following e-mail address.

[amac@yildiz.edu.tr](mailto:amac@yildiz.edu.tr)

- Subject of the e-mail **MUST** contain course name, Assignment # and student number in specified format written below;

**Example Subject :**

**BLM1011\_Assignment\_1\_18011001**

### Content

1. An PDF file which contains
  - a. **Question** - A brief description for each question
  - b. **Solution** - An explanation for each solution
  - c. **Flowchart** - Flowchart for each solution
  - d. **Analysis** - should be given for each question and each possible different cases

should be submitted via e-mail. The name of the PDF file should be given as follows: STUDENTID.PDF

**Example File Name:**

**18011001.pdf**

- Do not forget to prepare a cover page which should include
  - Course Name
  - Course Group
  - Instructor Name
  - Assignment Number
  - Delivery Date of the Assignment
  - Student Id
  - Student Name and Surname
  - Signature
- You can draw your flowchart either by your hand or by computer. Just work clean !!!

### **ATTENTION**

- Assignments that don't comply with submission rules will **NOT** be evaluated. **"NO EXCEPTION"**