

Family name (CAPITALS):

First name:

Faculty:

Year of Study:

Group no:

Subject C1

(1 pc - ELIMINATORY) Create on your partition on the server a folder named **InfoEXAM**.

A study has been conducted at Obstetrics and Gynaecology section of Bistrița County Hospital on babies born in 2008 in order to analyze the influence of drugs consumption (case group: the mothers consumed drugs during pregnancy; control group: the mothers did not consumed drugs during pregnancy) on babies' anthropometric measurements. The following variables were collected and the data were store in **ExamC.xls** file (<http://sorana.academicdirect.ro> – Students – Faculty of Medicine & Faculty of Dentistry (UMP Cluj-Napoca) - English Section – Databases for Practical Exam): Gender (female/male), Gestational age (years), Birth weight (g), Birth length (cm).

Requests:

1. **(1 pc. - ELIMINATORY)** Open the **ExamC.xls** file. Select all data, copy and paste all data into a new Microsoft Excel file in *Sheet1*. Save the new Excel file as **DataC.xls** in the **InfoEXAM** folder.
2. **(1 pc. - ELIMINATORY)** Create a new quantitative continuous variable named PI (ponderal index) using the following definition: the ratio of birth weight (g) to the cube of the length (cm³) × 100.
3. **(1.5 pc.)** Represent graphically the relationship between weight and length.
4. **(1 pc.):** Compute for case and separately for control groups the coefficient of variation for the following variables: weight, length, PI. Save the results in a new sheet named *Homogeneity Analysis*.
5. **(1.5 pc.):** The mother consumption of drugs is a risk factor for intrauterine growth restriction (IUGR) for case group? Intrauterine growth restriction is defined as $PI < 2.4$. (Create a new dichotomial variable named IUGR) before applying the proper test. Save the results in a new sheet/file (the file must be saved in **InfoEXAM** folder) named *Test statistic*.
6. Create a presentation for this study using Microsoft PowerPoint:
 - A. **(1 pc.)**
 - 1st slide: title of the presentation, author name (your name), author affiliation (the name of University and the name of Faculty)
 - 2nd slide: Content page.
 - 3rd slide: Copy graphical representation (obtained by accomplishes the Request 3)
 - 4th slide: Copy the results of homogeneity analysis (obtained by accomplishes the Request 3).
 - B. **(0.5 pc. - ELIMINATORY)** Interpretations (5th slide):
 - What could you say about the relationship between weight and length?
 - C. **(1 pc.)** Statistical test (6th & 7th slides): Include in these slides the following information:
 - State the null and alternative hypotheses
 - Specify the level of significance used
 - Write the name of the test used
 - Write the value of test parameter and its statistical significance
 - Interpret the result from statistical and clinical points of view.
 - D. **(0.25 pc. – ELIMINATORY)**. Save the document with your name (e.g. FirstSECONDNAME - JohnSMITH) on the **InfoEXAM** folder as PowerPoint presentation.