Numerical Methods

**Report**

Date of the exercise: **14/03/2019**

Exercise: **Theory of Errors**

Group: 2, Team:

Subsection (names):

1. Mateusz Nowotnik

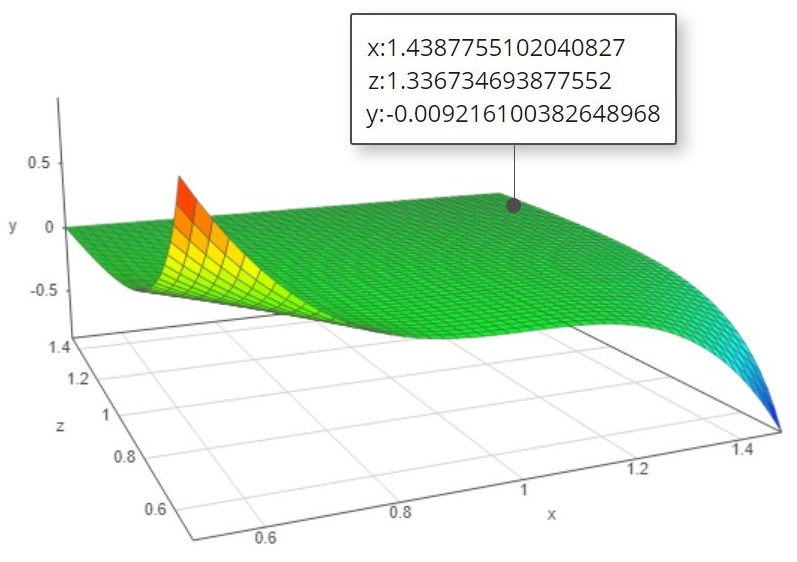
2. Dawid Tomala

**Task 1 –** Calculate the Lagrange remainder

Data:

Calculations:

Conclusion:



For the second degree Taylor Polynomial of on the interval, centered at , the Lagrange remainder is dependent on the argument of the function and the value , which sits between and **.**

**Task 2 a) -** Find least upper bound of absolute error of object volume

Data:

Calculations:

The total volume of this geometric object is equal to **.**

**Task 2 b) -** Find interval in which the volume of the object is contained

Data:

Calculations:

The total volume of this geometric object is contained within the interval **[27.369;39.506].**

**Task 2 c) –** Find the inverse error