1 individual task in discrete math:

Edited at 10am 27.3.2017.

s is your student number. k = s mod 10000. T = s mod 100. m = s mod 35. a = s mod 25.

L = s mod 10. $d\_{2}=\frac{T-L}{10}$. e = s mod 8. m7 = s mod 7. m6 = s mod 6. m4 = s mod 4. m3 = s mod 3.

**Proofs:**

1. Prove that $\sum\_{i=0}^{T}b^{i}=\frac{1-b^{T+1}}{1-b}$, $b\ne 1$.

2. Prove the expression for $\sum\_{c=1}^{j}c^{L}$

http://discrete4math.weebly.com/uploads/2/5/3/9/25393482/p2integration2vs2summation.docx

**Relations:**

3. Binary relation R on the set {1 to e+2} is defined so that *a*R*b* holds if and only if

*a* divides *b*, with remainder. Find the matrix and draw the graph.

Is it reflexive, symmetric, anti-symmetric, transitive, composite?

4. Binary relation R on the set {1 to e+2} is defined so that *a*R*b* holds if and only if

*a* divides *b*, with NO remainder. Find the matrix and draw the graph.

Is it reflexive, symmetric, anti-symmetric, transitive, composite?

Games:

5. Solve polygonal areas problem for:

m4 = 0: 4

m4 = 1: 6

m4 = 2: 8

m4 = 3: 9

Plot polygon using this plotter:

http://www.shodor.org/interactivate/activities/SimplePlot/

http://physics16.weebly.com/uploads/5/9/8/5/59854633/4polygonalareaszimmermann.xlsx

http://physics16.weebly.com/uploads/5/9/8/5/59854633/6polygonalareaszimmermann.xlsx

http://physics16.weebly.com/uploads/5/9/8/5/59854633/8polygonalareaszimmermann.xlsx

http://physics16.weebly.com/uploads/5/9/8/5/59854633/9polygonalareaszimmermann.xlsx

6. Join Dota2 gaming competition.

http://www.dota2.com/international/overview/

Project:

7. Improve your project.

Write the proposal.

Deadline: 31.3.2017 Friday.