Lecture 1: Quiz

Name:

Problem 1

Match the mathematical topics with the descriptions:

A	Arithmetic
B	Geometry
C	Number theory
D	Algebra
E	Calculus
F	Logic
G	Probability
H	Topology
I	Analysis
J	Numerics
K	Dynamics
L	Computer Science

	The theory of derivatives and integrals
	The theory of equations with integer solutions
	The theory of structures defined by operations
	The theory of shape, size and symmetry
	The theory of formal systems and proofs
	The theory of basic operations with numbers
	The theory of random phenomena and processes
	The theory of computation, language and complexity
	The theory of invariants and deformations
	The theory of estimation, extremization
	The theory of effective numerical computations
	The theory of transformations and differential equations

Problem 2

a) Name a very productive mathematician who has proven formulas which are considered the most beautiful of all times.

b) About when was the Gauss-Bonnet theorem found? | 1748 | | 1848 | | 1948 |

Problem 3

a) How many ancient roots of Mathematics were there:

8	
12	
3	

b) How many liberal arts and sciences are there?

3	
4	
7	

Problem 4

We have discussed a theorem about towns today. Which of the following assumptions are needed so that the result is true?

Any two bricks have to touch.	
Any two bricks have to face.	
If two bricks touch, they face.	
All the bricks are connected	
There should be no holes	