

## Lesson 1, September, 8, 2009 BMC - Elementary

*Overview.* This short introductory workshop followed the organizational meeting. The topic was constructing simple knots on the graphs. We discussed that a planar graph is something like a skeleton for a knot. Given a graph, the algorithm follows the steps:

- 1) Mark in the middles of the edges the self-crossings of the future knot.
- 2) Going along the edges, draw the path of the knot. Each time when you reach a crossing, you have to cross it.
- 3) Using a „hint”, draw the knot, showing where the rope goes „over”, and where it goes „under” itself.

The complete set of instructions, examples, tutorials can be found at <http://www.entrelacs.net>.

Also check the book (suitable for interested parents, not kids ☺) :

The Knot book, by Colin C. Adams, (page 51).

Enclosed are the examples considered in class.

*Observations.* The most difficult part for kids was to put the rope „over” and „under” on the drawing.

