Name (Please print) _____

Mathematical Seminar
Spring 2003

45. (10) Tom's homework assignment consists of 20 problems. He gets 8 points for each correct solution and minus 5 points for each incorrect solution. He gets no points if he does not submit a solution of a problem. His total score is 13 points. How many solutions did he submit?

46. (10) Can one make a cut inside the standard piece of paper such that a grown man can go through it? (One is not allowed to cut the border of the sheet.)

47. (10) In the spring Oblomov lost 25% of his weight. Then he gained 20% in the summer and lost 10% in the fall. In the winter he again gained 20%. Did he lose or gain weight that year?

48. (15) New chess figure "Giraffe" makes moves as follows: 4 squares in one direction and 5 in a perpendicular direction. How many Giraffes one can put on the chess board so that they can not attack each other after any number of moves?