Czech ACM Student Chapter
CTU in Prague, Dept. of Computer Science and Engineering
VŠB TU Ostrava, FEI, Dept. of Computer Science
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CTU Open Contest 2002

N.A.T.O. Summit

Dear contestants:

As you probably know, NATO Summit will be held in Prague in the end of November 2002. This important event brings many challenging problems that must be solved to ensure the safety and convenience of all participants.

Many of such problems can be solved with the help of computers, if we have a proper software equipment. Fortunately, the people in Summit Headquarters know very well who can develop programs for solving these complex tasks. They know that the best programmers participate in the CTU Open Contest every year. Therefore, they asked us to give you descriptions of the most important problems. You are to solve them now. Note that the success of this big international event depends on you.

All of the programs will run in UNIX environment. Every program should read data from the standard input and send results to the standard output. The data format is given and must be exactly followed. There will be no extra spaces in the input and there should be no extra spaces and newlines in the output, if not stated otherwise. The end-of-line character is not considered a part of the line. All numbers will fit into the standard signed *integer* type of 32 bits, if the description of a particular problem does not say otherwise.

We wish you a lot of fun and good luck with solving these problems. The reputation of the Czech Republic is in your hands. And please remember: this mission is top secret! You must not tell anyone you were here. ;-)

Your organizing team

This problem set consists of twelve sheets of paper (including this one) and it contains ten problems. Please check whether you have the complete set.