# ITMO UNIVERSITY

Introduction to Competitive Programming
Week 1

Welcome to competitive programming

Rules of programming competitions

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Rules of programming competition

Statement

Name

input/output files

time/memory limits

input/output formats

examples
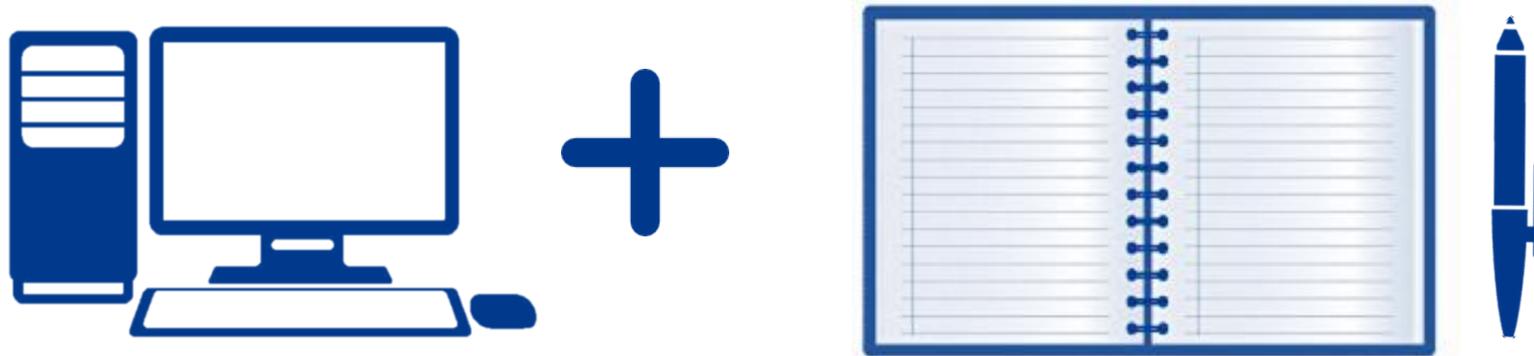
Regional Olympiad of Students
St Petersburg, October 24, 2015

Problem E. Easy Arithmetic

Input file:	easy.in
Output file:	easy.out
Time limit:	2 seconds
Memory limit:	256 megabytes

Eva is a third-grade elementary school student. She has just learned how to perform addition and subtraction of arbitrary-precision integers. Her homework is to evaluate some expressions. It is boring, so she decided to add a little trick to the homework. Eva wants to add some plus and minus signs to the expression to make its value as large as possible.

Input

The single line of the input file contains the original arithmetic expression. It contains only digits, plus ('+') and minus ('−') signs.

The original expression is correct, that is:
- numbers have no leading zeroes;
- there are no two consecutive signs;
- the last character of the expression is a digit.

The length of the original expression does not exceed 1000 characters.

Output

Output a single line — the original expression with some plus and minus signs added. Output expression must satisfy the same correctness constraints as the original one. Its value must be as large as possible.

Examples

easy.in	easy.out
10+20−30	10+20−3+0
−3−4−1	−3−4−1
+10	+10

Testing system

Outcomes

Outcome	Test Number	Comment
Compilation error	No	Executable file was not created after compilation.
Time limit exceeded	Yes	The program exceeds the time limit.
Memory limit exceeded	Yes	The program exceeds the memory limit.
Runtime error	Yes	The program terminates with non-zero exit code or throws an uncaught OS exception.
Presentation error	Yes	The checker cannot check output because it does not match the format specified in the problem statement.
Wrong answer	Yes	The answer is not correct.
Accepted	No	Run is accepted.

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Contest steps

START

Contest is over

Read all problems → Solve the problem

Send solution (run) to test system

Look at the outcome

Yes — Is outcome = OK? — No — Find bugs

Standings

accepted, two wrong submits

rejected, 16 wrong submits

total problems

problems

penalty
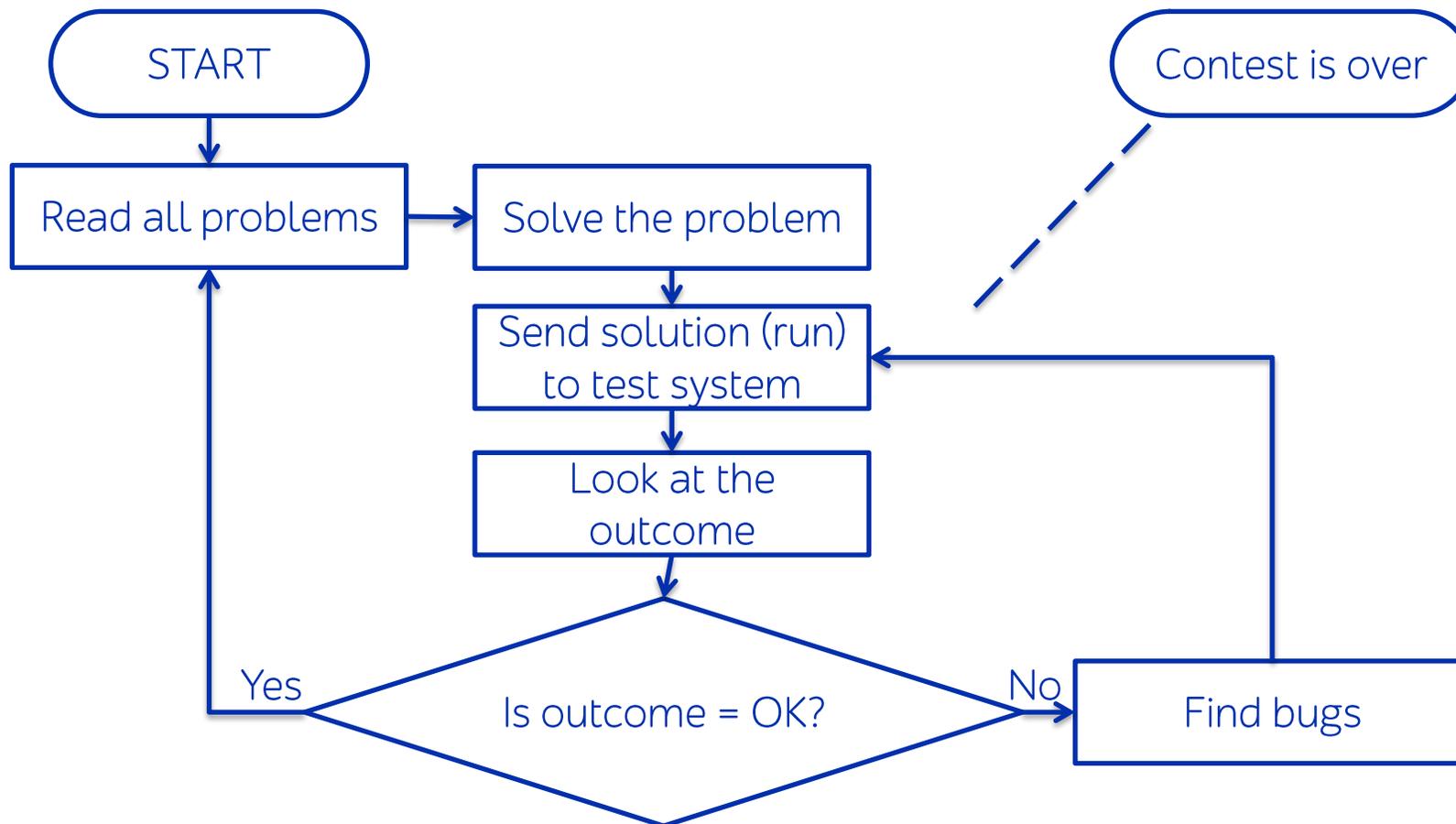
teams

```
5:00:00 of 5:00:00
status: over

runs: 3161, accepted: 924
last success: Tashkent University of Information Technologies Urgench 2 (Yusupov, Aminov, Sultonov), J, 4:59:59

☑ Show time
```

Rank	Team	A	B	C	D	E	F	G	H	I	J	K	=	Time
1	SPb ITMO University 1 (Korotkevich, Minaiev, Vasilyev)	+ 9:30	+1 27:11	+ 203:44	+1 229:19	+ 110:05	+ 28:33	−16	.	+1 52:19	+ 36:04	+ 7:38	9	761
2	Moscow State University 1 (Evstropov, Pyaderkin, Omelyanenko)	+ 13:32	+1 67:32	+2 240:10	+ 134:29	+ 176:21	+ 61:34	.	.	+ 131:13	+ 31:32	+ 17:19	9	930
3	Moscow State University 3 (Shlyunkin, Gorbunov, Akhmedov)	+ 19:39	+1 70:11	.	.	+ 135:31	+ 45:09	.	.	+ 173:07	+1 52:25	+ 14:23	7	568
4	Moscow State University 2 (Cherepanov, Dubinin, Mokin)	+1 25:12	+1 86:24	.	−1	+1 114:04	+ 119:06	.	.	+ 85:56	+ 65:10	+ 20:17	7	574
5	Moscow Institute of Physics and Technology 5 (Kuzmichev, Surin, Pershakov)	+ 28:35	+ 56:26	.	+3 233:01	−1	+ 97:43	.	.	+ 111:20	+ 64:39	+ 37:42	7	686
6	Saratov State University 2 (Svechnikov, Frolov, Los)	+ 28:06	+ 69:51	.	−1	+ 243:25	+ 113:08	.	.	+ 173:43	+ 51:12	+ 18:16	7	695
7	SPb State University 4 (Gordeev, Sayfutdinov, Simonov)	+ 20:02	+2 71:56	.	.	+ 201:00	+ 88:35	−1	.	+2 231:31	+ 45:07	+ 15:10	7	751
8	Saratov State University 1 (Kudasov, Gusarov, Kudryashov)	+ 20:34	+ 66:20	.	+2 279:55	−2	+ 57:34	.	.	+ 224:53	+1 33:15	+ 16:59	7	755
9	Moscow Institute of Physics and Technology 1 (Semenov, Zhuk, Ivaschenko)	+ 24:50	+ 104:29	.	.	+ 247:37	+ 52:58	−4	.	+1 182:56	+1 102:07	+ 13:03	7	764
10	SPb Academic University 1 (Akimov, Karpov, Sluzhaev)	+2 31:32	+ 71:20	.	+6 262:41	+ 200:58	+1 83:31	.	.	−2	+ 48:34	+ 17:30	7	892
11	SPb ITMO University 2 (Bardashevich, Filippov, Yakutov)	+2 85:43	+ 60:26	.	.	+1 239:21	+1 145:45	.	.	+ 144:14	+ 158:44	+ 23:21	7	934
12	SPb State University 1 (Andreev, Sokolov, Pyshkin)	+ 24:50	+ 48:41	.	+5 288:56	+3 278:30	+ 69:55	.	.	.	+1 93:27	+ 12:18	7	992
13	Moscow Institute of Physics and Technology 2 (Mashrabov, Tikhomirov, Chebanov)	+ 12:16	+4 171:36	.	.	+5 288:09	+ 96:23	.	.	+1 213:57	+2 121:28	+ 21:37	7	1162
14	Belarusian State University 1 (Hrytskevich, Kolesau, Nekrashevich)	+ 28:43	+ 50:08	.	.	−3	+ 74:13	.	−6	+ 111:31	+ 18:36	+ 24:42	6	305
15	SPb ITMO University 3 (Belonogov, Zban, Podtelkin)	+ 20:16	+1 30:43	.	.	−10	+ 73:20	.	.	+ 213:24	+ 37:56	+ 28:59	6	421
16	Belarusian SU of Information and Radioelectronics 2 (Tanasiuk, Berezhnov, Astashkevich)	+ 29:21	+1 80:52	.	.	+3 224:11	+1 74:18	.	.	.	+ 15:57	+ 35:05	6	557
17	NU of Science and Technology MISiS 1 (Skoryukina, Chernov, Bulatov)	+1 36:38	+ 80:08	.	.	+ 237:26	+ 105:48	.	.	−5	+ 56:38	+ 39:21	6	573
18	Free U of Tbilisi 1 (Mandzulashvili, Guliashvili, Svanidze)	+ 23:29	+3 68:45	.	.	−5	+ 103:30	.	−9	+1 205:38	+ 82:23	+ 19:08	6	580
19	SPb State University 3 (Malinovskii, Savchenkov, Avdyukhin)	+ 20:30	+ 57:42	.	.	−1	+ 46:53	−4	.	+2 288:48	+ 78:26	+2 18:02	6	587
20	Moscow Aviation Institute 1 (Mishonov, Belousov, Yushchenko)	+1 37:31	+1 125:11	.	.	−1	+ 96:06	.	.	+ 235:49	+1 64:15	+ 29:52	6	646
21	Belarusian State Economic University (Charnevich, Stsepa, Sashcheka)	+1 23:28	+1 114:30	.	.	+1 286:07	+ 75:11	−3	.	−1	+1 64:50	+ 19:59	6	661
22	Higher School of Economics 2 (Mokriy, Trofimov, Sayranov)	+1 79:17	+1 53:34	.	.	.	+1 31:48	−1	.	+3 271:56	+1 69:41	+1 15:35	6	678
23	SPb ITMO University 4 (Garder, Kucherenko, Kovsharov)	+1 8:57	+4 92:36	.	.	−6	+1 95:07	.	.	+1 241:33	+1 71:47	+ 15:14	6	682
24	Kazan Federal University (Gainitdinov, Butin, Yamilov)	+ 33:12	+1 111:24	.	.	.	+ 142:47	−2	.	+2 291:10	+ 60:57	+ 17:52	6	714
25	Belarusian State University 3 (Sataneuski, Ivanin, Nalivaika)	+ 33:25	+2 124:48	.	.	−1	+ 112:40	.	.	+1 236:14	+1 69:45	+1 42:54	6	716

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