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Input Format

The problem instance files have the following format (all numbers are integers, all intra-line separators are spaces). These files are in exactly the same format as the first international timetabling competition, except that two extra matrices have been added to the bottom (see below).

First line:
Number of events; number of rooms; number of features; number of students;

One line for each room:
Roomsize;

One line for each student/event:
A zero or one. A zero means that the student does NOT attend the event; a one means that he DOES attend the event. In the order of these, the event changes more quickly.

For example, if there were 3 students and 4 events then the following:

```
0
1
0
0
1
1
0
0
0
0
1
0
```

would give this attends matrix:

		event		
	0	1	0	0
student	1	1	0	0
	0	0	1	0

Meaning:

- the first student attends the second event
- the second student attends the first and second events
- the third student attends the third event

One line for each room/feature:

A zero if the room does NOT satisfy the feature, or a one if the room DOES satisfy the feature. In the order of these the feature changes more quickly.

For example, if there were 3 rooms and 4 features then the following:

```
0
1
0
```

```
0
1
1
0
0
0
0
1
0
```

would give this roomfeatures matrix:

		Feature		
	0	1	0	0
Room	1	1	0	0
	0	0	1	0

Meaning:

- the first room satisfies the second feature
- the second room satisfies the first and second features
- the third room satisfies the third feature

One line for each event/feature:

A zero if the event does NOT require the feature, or a one if it DOES. In the order of these the feature changes more quickly.

For example, if there were 3 events and 4 features then the following:

```
0
1
0
0
1
1
0
0
0
0
1
0
```

would give this eventfeatures matrix:

		Feature		
	0	1	0	0
Event	1	1	0	0
	0	0	1	0

Meaning:

- the first event requires the second feature
- the second event requires the first and second features
- the third event requires the third feature

One line for each event/timeslot:

A zero if the event cannot be assigned to the timeslot, or a one if it can. In the order of these the timeslot changes more quickly.

For example, if there were 3 events and 4 timeslots then the following:

1
0
1
1
0
0
1
0
1
1
1
1

would give this event_availability matrix:

		Timeslot		
	1	0	1	1
Event	0	0	1	0
	1	1	1	1

Meaning:

- the first event can be assigned to timeslots 1, 3, and 4, but not timeslot 2
- the second event can only be assigned to timeslot 1
- the third event can go in any timeslot

One line for each event/event:

A one if the first event should be scheduled before the second event; a minus one if the first event should be scheduled after the second event; and a zero if there is no preference
For example, if there were 4 events then the following:

0
-1
0
0
1
0
0
1
0
0
0
0
0
-1
0
0

would give this before matrix (note that this matrix contains redundancy):

		Event		
	0	-1	0	0

Event	1	0	0	1
	0	0	0	0
	0	-1	0	0

Meaning:

- the second event should be scheduled to occur before the first event (and similarly, the first event should be scheduled to occur after the second event)
- the second event should be scheduled to occur before the forth event (and similarly, the forth event should be scheduled to occur after the second event)

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