**Problem 2. Magic**

Ivancho is really keen on watching movies. In fact, sometimes they make him ask himself questions which he cannot answer. The last film that Ivancho watched was pretty interesting. The magician Gandaldore wants to create an army of dragons to defend his country from the invading of the giants. The magician creates one new dragon every single day for N days. In K of the days he has a super power so firstly he creates a dragon than he duplicates the number of the dragons he has.

Ivancho is really impressed by the skills of Gandaldore and now he wants to find out the number of dragons that will have been created by the N-th day. As you can easily guess Ivancho cannot solve this problem without your help. Write a programme **magic** that answers Ivanchos question.

**Input**: The first line of the input file **magic.in** contains two integers N and К. The second line contains K integers – the numbers of the days that Gandaldore has super power.

**Output**: The output file **magic.out** must contain a single integer – the number of the dragons after the N-th day.

**Constraints:**

1N100

1 K100

1 KiN

**TIME LIMIT – 2 sec**

**Note**:You can scan from a file and print into a file by using an operator for that. You can use operator freopen including fstream library and adding the following two lines in the beginning of your main function:

freopen ( "magic.in", "r", stdin );

freopen ( “magic.out”, “w” , stdout );

**Example:**

|  |  |
| --- | --- |
| **magic.in** | **mаgic.out** |
| 10 6  3 7 8 2 4 6 | 200 |