DWITE '09 R3 #3 - Binary Test Strings 2

Time limit: 2.0s **Memory limit:** 64M

DWITE Online Computer Programming Contest, December 2009, Problem 3

The input will contain 5 lines, a binary string of length 1 to 8 — a pattern that should not appear in binary strings in the generated set.

That is: if the input is `1`, then the only valid output string is `00000000` (any other binary string of size 8 will contain `1`). A pattern `111111` blocks out:

```
00111111
01111110
01111111
10111111
11111100
11111101
11111110
11111111
```

The output will contain 5 lines, a sum of `1`s present in the filtered sets.

Notes regarding the samples: `1` filters out everything but `00000000`, which has no `1`s, and so the sum is 0. `0` filters out everything but `11111111`, there are eight `1`s, so the sum is 8. The only pattern that `00000000` filters out is itself, which doesn't contribute to the sum anyway. All of the 8 bit binary strings: `1`, `10`, `11`, ..., `11111110`, `11111111` contain 1024 `1`s. Yes, I've counted them.

Sample Input

```
1
0
11
00
00000000
```

Sample Output

```
0
8
130
310
1024
```

Problem Resource: DWITE