DWITE '09 R4 #2 - Verifying Distributed Work

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

DWITE Online Computer Programming Contest, January 2010, Problem 2

Distributed Computing – the use of a large network of computers to perform work together, could be an interesting field of Computer Science. Supercomputers are assembled as such closely connected networks. Alternatively, one could potentially create a larger network, and for cheaper, by letting individual computers contribute over a bigger network, such as the internet (some might have heard of SETI@home). Since individual nodes are someone else's computer that run untrusted code, the results are also not trusted, so some verification needs to take place that the work performed is legit.

The input will contain 5 sets of input, an odd integer $1 \leq N \leq 7$ followed by N integers, $0 \leq R \leq 100$ "results" for the same piece of work from N workers.

The output will contain 5 lines, a decision about the performed work. If the majority of the results agree (that is, they are the same), then it is taken as `verified`. If there is no major consensus, but 1 result has more matches than any other result, then it is taken as `unverified`, otherwise the result is `unknown`. Print just the decision.

Note: the majority (more than half) of 1 is 1, so a single result is always `verified`.

Sample Input

```
3
42
42
42
3
42
42
41
5
42
42
50
51
52
3
42
41
40
1
42
```

Sample Output

```
verified
verified
unverified
unknown
verified
```

Problem Resource: DWITE