

16 BIT S/W ONLY

One day you woke up, finding yourself back in 1992. It would seem that [the gypsy wife of the wizened old monk whose voodoo shop you smash up every day after school](#) has cast a spell on you.

Early in the production process of the 80386, Intel discovered a fatal bug in the processor, which they of course fixed. The bug involved errors when performing 32-bit multiplication. But by the time they fixed the issue, a number of processors were already produced, and they decided that it would be a shame to throw them all out. It was decided that these processors would be sold at a reduced price with the tag

`16 BIT S/W ONLY` (16 bit software only). Conversely, the newer processors which don't

have the bug instead have two sigmas ($\Sigma\Sigma$) stamped on. We will call them `DOUBLE SIGMA` processors.



Back in 1985, 32-bit software was something out of reach of most consumers. Even in 1989, the ancient 8086 was sold as new technology. Hence, there is a market for the defective processors.

You, a programmer, decided to get a programming job in the 1992 world so you can survive until you find a way to return to the modern age. In a cluster of servers, some of them use the `16 BIT S/W ONLY` processors, but you don't know which ones. Your first job is to determine the bad processors from the 32-bit multiplication results.

The 80386 has an instruction to multiply two 32-bit integers into a 64-bit result, conventionally stored in `EDX:EAX` register (i.e. temporary variable) pairs because there were no 64-bit registers.

Input Specification

The first line of input will be the integer N such that $1 \leq N \leq 1\,000$. The next N lines of input will contain integers A , B , and P , such that $-2^{31} \leq A, B < 2^{31}$ and $-2^{63} \leq P < 2^{63}$.

Output Specification

For every line of input except the first, output `16 BIT S/W ONLY` if the product is wrong, or `POSSIBLE DOUBLE SIGMA` if correct.

Sample Input

```
3
1 1 2
2147483647 2147483647 4611686014132420610
12345678 87654321 1082152022374638
```

Sample Output

16 BIT S/W ONLY
16 BIT S/W ONLY
POSSIBLE DOUBLE SIGMA