Buzz Rules Short Edition

The buzzwords are *buzz, bang, crash, whiz, zip, pop, fibbi, sump, and squawk*. Not all words are in force from the beginning; the game emcee will say when a word comes into force.

- **Buzz.** The number is a multiple of 7, or one of its digits is a 7.
- **Bang.** The number is a multiple of 5, or one of its digits is a 5.
- **Crash.** The number is *prime*. The primes are the numbers

  \[2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, \cdots\]

  that cannot be written as the product of two whole numbers, both greater than 1.
- **Whiz.** The number is *squarefree*. It’s not divisible by any square other than 1.
- **Zip.** The number is a *power*. That is, the number is got by multiplying some other number times itself more than once.
- **Pop.** The number is the *product of two distinct primes*.
- **Fibbi.** The number is part of the *Fibonacci* sequence. This sequence begins with 0,1 and self-extends by the rule that the next number is the sum of the two that came just before it.
- **Sump.** A sump number is one that is the sum of a square and a cube. Either of these can be zeros, so all squares, as well as all cubes, are sumps, but there are others, such as 5 = 4 + 1 and 17 = 9 + 8.
- **Squawk.** A squawk number is one that can be written as the sum of exactly two squares. A square is a number that is got by multiplying a whole number times itself. So 0 is a square, so the squares themselves are squawk numbers. (9 = 9 + 0, for instance.)