# Prime Numbers

A prime number can be divided, without a remainder, only by itself and by 1. For example, 13 can be divided only by 13 and by 1. Some facts:

* The only even prime number is 2. All other even numbers can be divided by 2.
* If the sum of a number's digits is a multiple of 3, that number can be divided by 3.
* No prime number greater than 5 ends in a 5. Any number greater than 5 that ends in a 5 can be divided by 5.
* Zero and 1 are not considered prime numbers.
* Except for 0 and 1, a number is either a prime number or a composite number. A composite number is defined as any number, greater than 1, that is not prime.

To prove whether a number is a prime number, first try dividing it by 2, and see if you get a whole number. If you do, it can't be a prime number. If you don't get a whole number, next try dividing it by prime numbers: 3, 5, 7, 11 (9 is divisible by 3) and so on, always dividing by a prime number (see table below).Here is a table of all prime numbers up to 277:

|   | 2  | 3  | 5  | 7  | 11  | 13  | 17  | 19  | 23 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29  | 31  | 37  | 41  | 43  | 47  | 53  | 59  | 61  | 67 |
| 71  | 73  | 79  | 83  | 89  | 97  | 101  | 103  | 107  | 109 |
| 113  | 127  | 131  | 137  | 139  | 149  | 151  | 157  | 163  | 167 |
| 173  | 179  | 181  | 191  | 193  | 197  | 199  | 211  | 223  | 227 |
| 229  | 233  | 239  | 241  | 251  | 257  | 263  | 269  | 271  | 277 |