| $n$ | $M_{n}$ | Digits | Prime? |
| :---: | :---: | :---: | :---: |
| 2 | 3 | 1 | Prime. |
| 3 | 7 | 1 | Prime. |
| 5 | 31 | 2 | Prime. |
| 7 | 127 | 3 | Prime. |
| 11 | 2, 047 | 4 | Not prime. In <br> 1536 Hudalricus  <br> Regius showed that <br> 2047 $=23 * 89$.  |
| 13 | 8,191 | 4 | Prime. Proved prime in 1456. Discover not known. |
| 17 | 131, 071 | 6 | Prime. Cataldi proved prime in 1603 using trial division. |
| 19 | 524, 287 | 6 | Prime. Cataldi proved prime in 1603 using trial division. |
| 23 | 8,388, 607 | 7 | Not prime. Cataldi claimed as prime in 1603. Fermat showed was composite in 1640. |
| 29 | 536, 870, 911 | 8 | Not prime. Cataldi claimed as prime in 1603. Euler showed was composite in 1738. |
| 31 | $\begin{aligned} & \hline 2,147,483, \\ & 647 \end{aligned}$ | 10 | Prime. Euler proved prime in 1772. |
| 37 | $\begin{aligned} & 137,438,953, \\ & 471 \end{aligned}$ | 12 | Not prime. Fermat showed was composite in 1640. |
| 61 | $\begin{aligned} & \hline 2,305,843, \\ & 009,213,693, \\ & 951 \end{aligned}$ | 19 | Prime. Pervushin proved prime in 1883. |

Table 3.7: Mersenne Primes $M_{n}$ are prime numbers of the form $2 \times 2 \times 2 \cdots \times 2-1$, where there are $n$ copies of the number 2. Some $M_{n}$ are prime and some are not. Source: Chris Caldwell, The Largest Known Prime by Year [27].

