

PRIMES



The Sieve of Eratosthenes "catches" the prime numbers.

About 200 BC, Eratosthenes, a Greek mathematician, invented the following method of finding prime numbers.

First: Circle the number 2

Second: Cross out all other multiples of 2 (you are crossing out some of the COMPOSITE numbers)

Third: Look for the first number after 2 that is not crossed out; circle it (it is 3); cross out all larger multiples of 3.

Fourth: Continue in this way until every number has been circled or crossed out

THE LIST OF CIRCLED NUMBERS IS A LIST OF THE FIRST PRIMES IN AN INFINITE SET.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Make a list of the primes from between 1 and 100:

The only factors of a prime number are 1 and itself.

Examples: $7 = 1 \cdot 7$

$$43 = 1 \cdot 43$$

Composite numbers have other factors: example: $8 = 2 \cdot 2 \cdot 2$



PRIME NUMBERS LESS THAN 2000

2	167	389	631	883	1153	1447	1709
3	173	397	641	887	1163	1451	1721
5	179	401	643	907	1171	1453	1723
7	181	409	647	911	1181	1459	1733
11	191	419	653	919	1187	1471	1741
13	193	421	659	929	1193	1481	1747
17	197	431	661	937	1201	1483	1753
19	199	433	673	941	1213	1487	1759
23	211	439	677	947	1217	1489	1777
29	223	443	683	953	1223	1493	1783
31	227	449	691	967	1229	1499	1787
37	229	457	701	971	1231	1511	1789
41	233	461	709	977	1237	1523	1801
43	239	463	719	983	1249	1531	1811
47	241	467	727	991	1259	1543	1823
53	251	479	733	997	1277	1549	1831
59	257	487	739	1009	1279	1553	1847
61	263	491	743	1013	1283	1559	1861
67	269	499	751	1019	1289	1567	1867
71	271	503	757	1021	1291	1571	1871
73	277	509	761	1031	1297	1579	1873
79	281	521	769	1033	1301	1583	1877
83	283	523	773	1039	1303	1597	1879
89	293	541	787	1049	1307	1601	1889
97	307	547	797	1051	1319	1607	1901
101	311	557	809	1061	1321	1609	1907
103	313	563	811	1063	1327	1613	1913
107	317	569	821	1069	1361	1619	1931
109	331	571	823	1087	1367	1621	1933
113	337	577	827	1091	1373	1627	1949
127	347	587	829	1093	1381	1637	1951
131	349	593	839	1097	1399	1657	1973
137	353	599	853	1103	1409	1663	1979
139	359	601	857	1109	1423	1667	1987
149	367	607	859	1117	1427	1669	1993
151	373	613	863	1123	1429	1693	1997
157	379	617	877	1129	1433	1697	1999
163	383	619	881	1151	1439	1699	