

# Prime Numbers I

A. 5 and 7 are prime; so are 11 and 13, and 17 and 19. Find two prime numbers bigger than 100, one of which is 2 more than the other.

Is it possible to find two prime numbers, bigger than 10, one of which is 3 more than the other? 4 more? Is it possible to find three prime numbers, bigger than 10, such that the second is 2 more than the first, and the third 2 more than the second?

B. How many prime numbers are there between 100 and 200? It will be easier if several of you work together on this one. Try to do it without a calculator.

Do you think there will be as many prime numbers between 1100 and 1200 as there are between 100 and 200?

C. Try adding 1 to square numbers. Do you ever get a multiple of 3? Of 5? Of 7? Of 11? Of 13? Of 17? What if you subtract 1 instead?

101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200