Sieve of Eratosphenes

A procedure to find all the prime numbers on a list of numbers.

Cross off 1.

Circle 2 – it is a prime number because it's only factors are 1 and 2.
Cross off all multiples of 2.

Circle the next number that is not crossed off (3) -- this number is a prime number because it would have been crossed off if it has a factor smaller than itself.
Cross off all multiples of that number.

Repeat the previous step until the number you circle has no multiples on the page left to cross off.

Circle all the rest of the numbers that haven't been crossed off yet. They are all prime numbers because it cannot be a multiple of any of the smaller numbers.

For this 200 chart, the first number that has no multiples left is 15, because 15^2 Is greater than 200. All smaller multiples have already been crossed off. Of course, so has 15. As you work you will notice a number larger than 15 that hasn't been crossed off yet, then you know to stop.

What is this number?

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
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