

Hunt for Prime Numbers: The Sieve of Eratosthenes

Use this chart to find the prime and composite numbers. You will need crayons or colored pencils of different colors. Do not use markers.

Follow these directions:

- 1) Star the one.
- 2) Cover the 2 with your finger. Then color in all the other multiples of 2 with one color crayon or pencil.
- 3) Cover the 3. Then color all the other multiples of 3 with a second color. If they are already colored as a multiple of 2, color them again with the new color.
- 4) The next number (4) is already colored, as are the multiples of 4. (Why?) Cover the 5, and color all the other multiples of 5 with a third color.
- 5) 6 is colored (and so are the multiples of 6). Cover the 7 and color all the remaining multiples of 7 with a new color.
- 6) 8, 9, and 10 are colored. (Why?) 11 is the next uncolored number. 11 is a prime number, and so are all the other numbers that are left uncovered in this chart. The numbers that are colored are composite numbers. (Note that the number 1 is starred. It is not prime or composite.)

List the prime numbers in this chart:

Why is 1 neither prime nor composite?

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