## **Exploring Prime Numbers**

1. 2's

- a. Circle all the multiples of 2 except 2
- b. What do you notice?
- c. Explain what you see?
- 2. 3's
- a. In a DIFFERENT COLOUR: circle all the multiples of 3 except 3
- b. What do you notice
- c. Explain what you see
- d. Did you have to circle any numbers that were already circled? If so, which ones?
- e. Why are some numbers circled twice and others only once?
- 3. 4's
  - a. In a DIFFERENT COLOUR: circle all the multiples of 4 except 4
  - b. What do you notice. Explain what you see

c. Did you have to circle any numbers that were already circled? If so, which ones?





- 4. 5's
  - a. In a DIFFERENT COLOUR: circle all the multiples of 5 except 5
  - b. What do you notice. Explain what you see.
  - c. Why are some numbers crossed out twice and others only once?
- 5. 6's
  - a. In a DIFFERENT COLOUR: circle all the multiples of 6 except 6
  - b. What do you notice. Explain what you see.
- 6. 7's
  - a. In a DIFFERENT COLOUR: circle all the multiples of 7 except 7
  - b. What do you notice. Explain what you see.
- 7. What is special about the numbers you haven't circled out?

8. Which numbers get circled more than once, and why?

9. Which possible factors do we need to consider in order to decide if a number is prime?

10. List the prime numbers



	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



Prime Number Sieve

1	2	3	4 <mark>.</mark>	5	<mark>6</mark> .	7	<mark>8</mark>	9	<b>10</b>
11	<mark>12</mark>	13	14	15	<mark>16</mark>	17	<mark>18</mark> .	19	<mark>20</mark>
21	22	23	<mark>24</mark> .	25	26	27	2 <mark>8</mark>	29	<mark>30</mark> .
31	<mark>32</mark>	33	34	35	<mark>36</mark> .	37	38	39	<mark>40</mark>
41	4 <mark>2</mark>	43	<mark>44</mark>	4 <mark>5</mark>	46	47	<mark>48</mark> .	49	5 <mark>0</mark>
51	<mark>52</mark>	53	<mark>5</mark> 4	55	5 <mark>6</mark>	57	58	59	<mark>60.</mark> 0
61	62	63	<mark>64</mark>	65	<mark>6</mark> 6	67	6 <mark>8</mark>	69	7 <mark>0</mark>
71	<mark>72</mark> .	73	74	7 <mark>5</mark>	7 <mark>6</mark>	77	<mark>78</mark>	79	<mark>80</mark>
81	82	83	<mark>84</mark> .0	85	86	87	8 <mark>8</mark>	89	<mark>90</mark> .
91	<mark>92</mark>	93	94	95	<mark>96</mark> .	97	98	99	<mark>10</mark> 0

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