

Prime Sites

INVESTIGATION ONE

prime numbers (in red)									
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

5 **6** **7**

5 and 7 are prime numbers.
6 is the first multiple of 6.

11 **12** **13**

11 and 13 are prime numbers.
12 is the second multiple of 6.

Are the numbers on either side of a multiple of 6 always prime?
Explain your answer.

INVESTIGATION TWO

Chebyshev, a Russian mathematician, wrote:
Between every whole number and its double,
there is always at least one prime number.



Chebyshev

Kaylene and Ranea are discussing Chebyshev's statement.
They start by looking at the numbers 1 to 20.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20



It works for 2.
Double 2 is 4. Between 2
and 4 is 3. That's prime!

It doesn't work for 1.
Double 1 is 2.
Between 1 and 2 there are
no prime numbers.

Investigate Chebyshev's theorem with at least 10 numbers.