Prime Numbers to 100

A prime number is a whole number which can only be divided by 1 and itself.

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

Remember these facts about prime numbers!

There are no even prime numbers except 2.	There are no prime numbers ending in 5, except 5.	The digits can't add up to 3 except 3 (digital root).

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61	62	63	64	65	66	67	68	69	70
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Remember these facts about prime numbers!

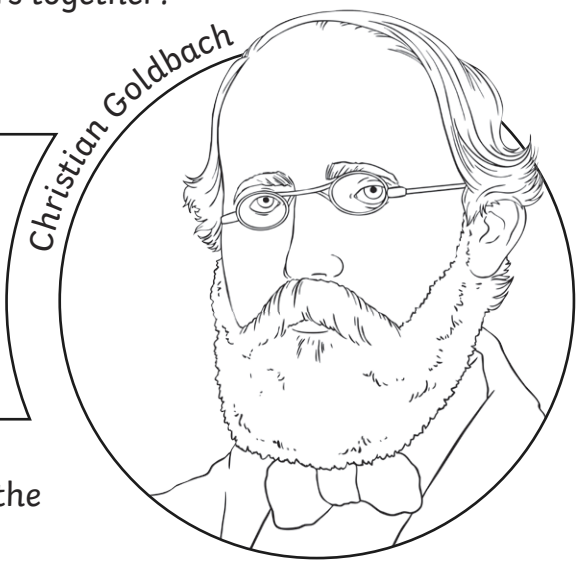
There are no even prime numbers except 2.	There are no prime numbers ending in 5, except 5.	The digits can't add up to 3 except 3 (digital root).

Primes and Squares

I can prove or disprove statements about prime numbers.

Can square numbers be made by adding two prime numbers together?

1) Write down the prime numbers to 100 in this box.



2) Write down the squares of the numbers 2 to 10 in the first column of this table.

$2^2 = 4$	$4 = 2 + 2$
$3^2 =$	
$4^2 =$	
$5^2 =$	
$6^2 =$	
$7^2 =$	
$8^2 =$	
$9^2 =$	
$10^2 =$	

3) Can you make all of the square numbers by adding two prime numbers together? Use the second column of the table to write down ways of making the numbers. The first one is done as an example.

4) Can all of these numbers be made by adding two prime numbers together? Explain why you think this. _____

Primes and Squares **Answers**

Question	Answer	
1.	Write down the prime numbers to 100 in this box.	
	2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97	
2.	Write down the squares of the numbers 2 to 10 in the first column of this table.	
	2^2 = 4	4 = 2 + 2
	3^2 = 9	9 = 7 + 2
	4^2 = 16	16 = 13 + 3
	5^2 = 25	25 = 23 + 2
	6^2 = 36	36 = 31 + 5
	7^2 = 49	49 = 47 + 2
	8^2 = 64	64 = 61 + 3
	9^2 = 81	81 = 79 + 2
	10^2 = 100	100 = 97 + 3
3.	Can you make all of the square numbers by adding two prime numbers together? Use the second column of the table to write down ways of making the numbers.	
	Refer to second column.	
4.	Can all of these numbers be made by adding two prime numbers together? Explain why you think this.	
	Yes, they can. It worked for all the numbers we tried.	

Primes and Squares Extension Activity

I can prove or disprove statements about prime numbers.

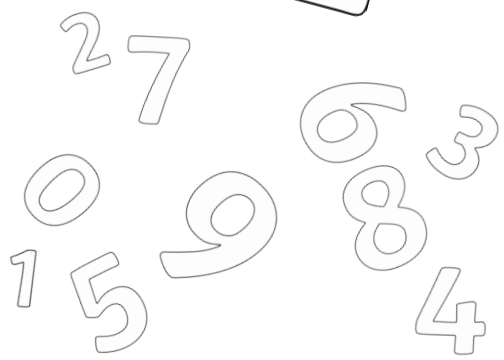
Choose one of these questions to investigate:

Can square numbers be made by adding two prime numbers together?

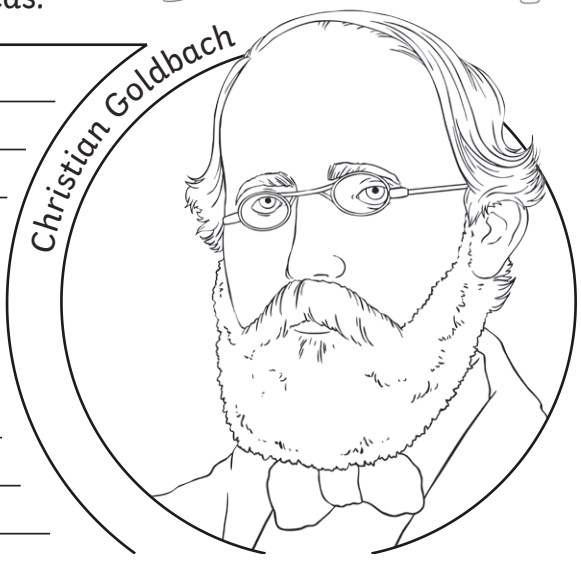
Is every even number the sum of two odd primes?

Can every whole number greater than two be written as the sum of two primes?

Can every whole number be made by multiplying prime numbers together?



What did you find out? Give evidence to support your ideas.



Square Numbers

A square number is the product of a number multiplied by itself.

1^2	1 × 1 =	1
2^2	2 × 2 =	4
3^2	3 × 3 =	9
4^2	4 × 4 =	16
5^2	5 × 5 =	25
6^2	6 × 6 =	36
7^2	7 × 7 =	49
8^2	8 × 8 =	64

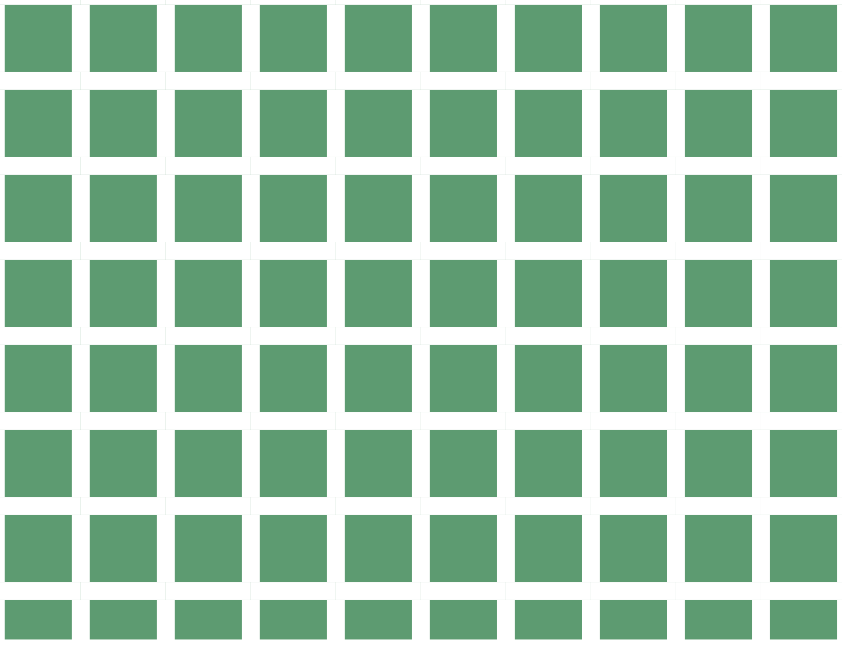
e.g. 10 × 10 = 100

which can be shown as:

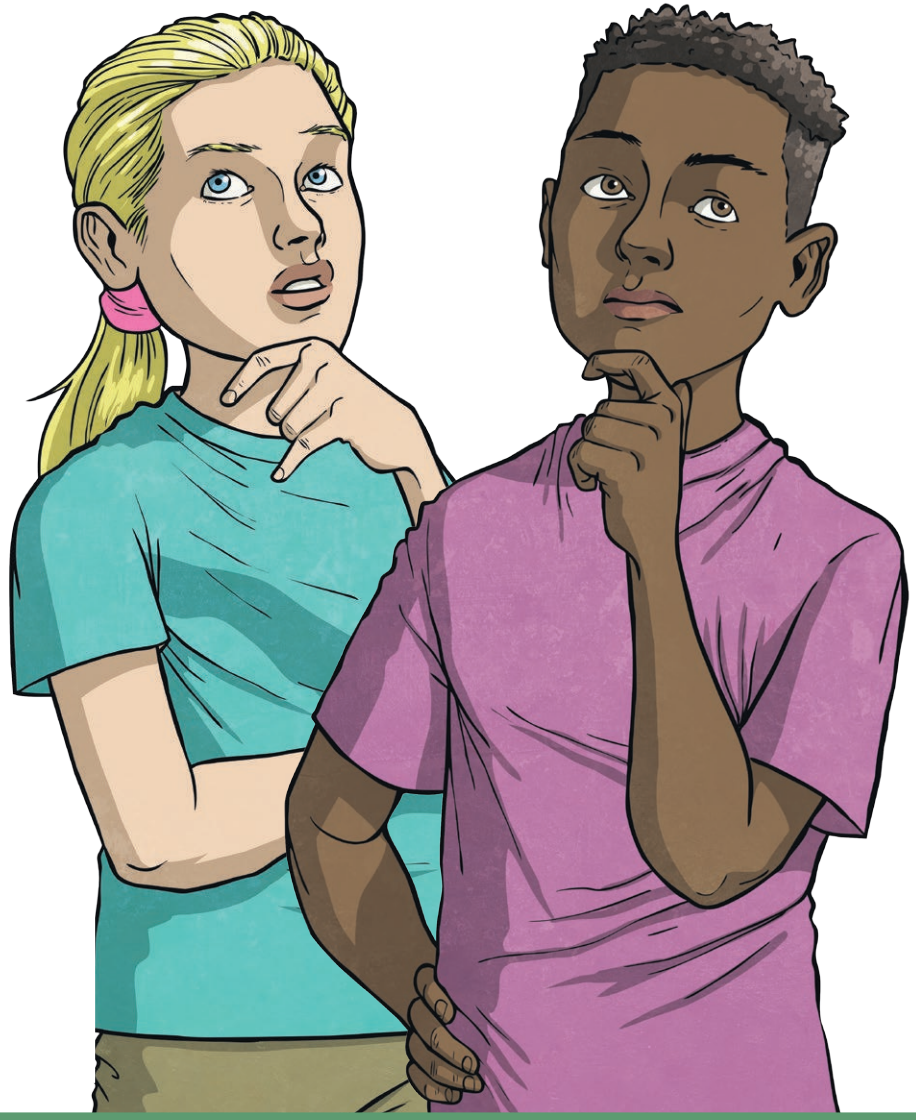
10^2 = 100

10 squared = 100

10 × 10 grid



8^2	8 × 8 =	64
9^2	9 × 9 =	81
10^2	10 × 10 =	100
11^2	11 × 11 =	121
12^2	12 × 12 =	144
13^2	13 × 13 =	169
14^2	14 × 14 =	196
15^2	15 × 15 =	225



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15^2	15 × 15 =	225

e.g. 10 × 10 = 100

which can be shown as:

10^2 = 100

10 squared = 100

10 × 10 grid