18.06.20

LO: To consolidate my knowledge of prime, square and cube numbers

1 a) Find the factors of these numbers.

6 8 9

The factors of 6 are _____.

The factors of 8 are _____.

The factors of 9 are _____.

b) Find the factors of these numbers.

3 5 7

The factors of 3 are _____.

The factors of 5 are _____.

The factors of 7 are _____.

c) What is the same and what is different about your answers to part a) and part b)?

_____

_____

Complete the sentence.

All the numbers in part b) are _____ numbers.

2 How you can prove that 18 is not a prime number?

_____

_____

_____

3 Circle the prime numbers in each list.

a) 1 2 3 4 5 6 7

b) 17 22 9 36 21 35 23

c) 10 18 38 74 92 2 14

4 a) Many people think that 1 is a prime number.
Explain why 1 is not a prime number.

b) Many people think that 2 is not a prime number.
Explain why people might think this.

5 Write ten numbers in the sorting diagram. Each section must have at least one number.

	Even	Not even
Prime		
Not prime		

6

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

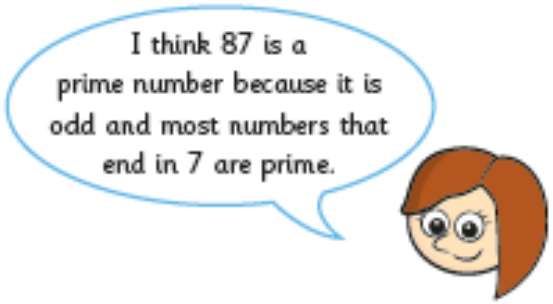
Cross out all the numbers that are **not** prime numbers.

List the prime numbers between 0 and 50

_____

_____

7

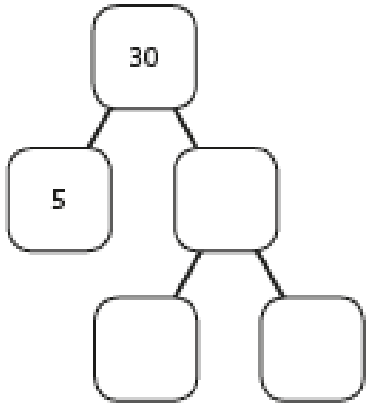


Do you agree with Rosie? _____

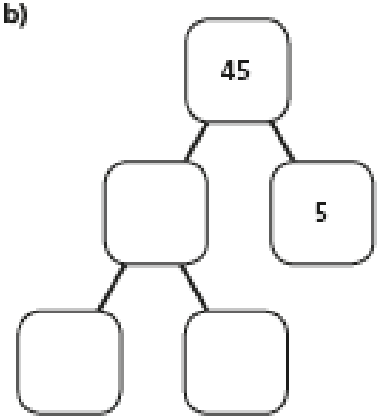
Test whether or not 87 is a prime number and show your reasoning.

8 Complete the prime factor trees.

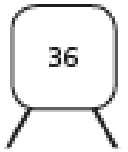
a)



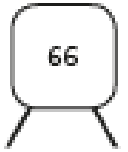
b)



c)



d)



9 ★ + ■ = 100

Both ★ and ■ are prime numbers.

How many different solutions can you find?

Prime numbers

2 Match the representations.

4 cubed

3 squared

4×4

4^2

2^3

3 Here is a $2 \times 2 \times 2$ cube. 

How many cubes do you need to build a $3 \times 3 \times 3$ cube? ☐

4 Complete the table.

2^2	2×2	4
2^3	$2 \times 2 \times 2$	
3^2		
3^3		
$\square^2$		25
	$5 \times 5 \times 5$	

5 Write <, > or = to complete the statements.

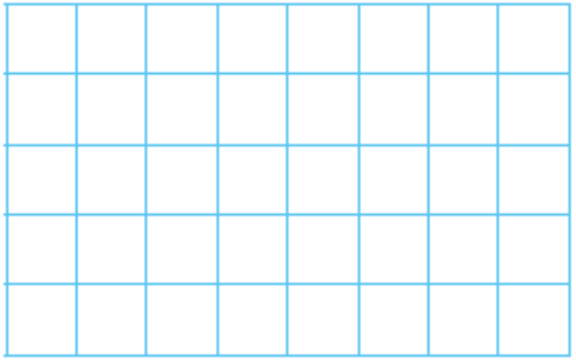
2 squared ◯ 2 cubed

2 squared ◯ 2×2

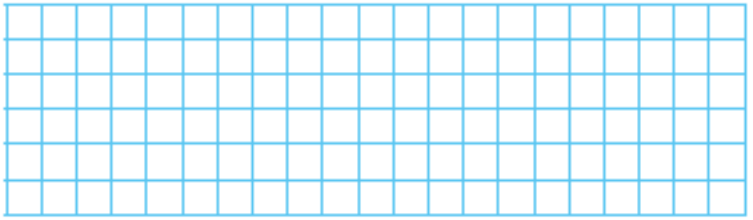
2 squared ◯ 4

2 squared ◯ 1 cubed

6 Draw 3 straight lines to split this grid into 3 squares and 1 rectangle.



7 Find four square numbers between 100 and 200



☐ ☐ ☐ ☐

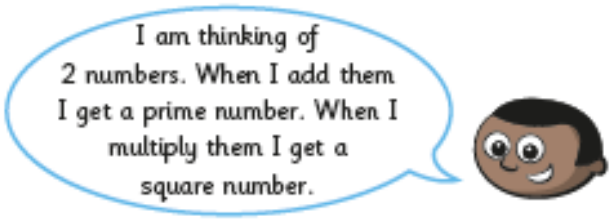
Square and cube

8 Dexter works out 20 squared.

Annie works out 20 cubed.

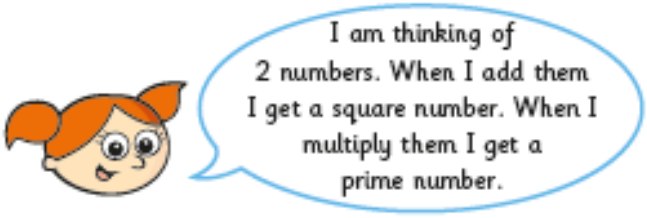
Find the difference between Dexter's and Annie's numbers.

9 a)



What numbers could Mo be thinking of?

b)



What numbers could Alex be thinking of?

Square and cube