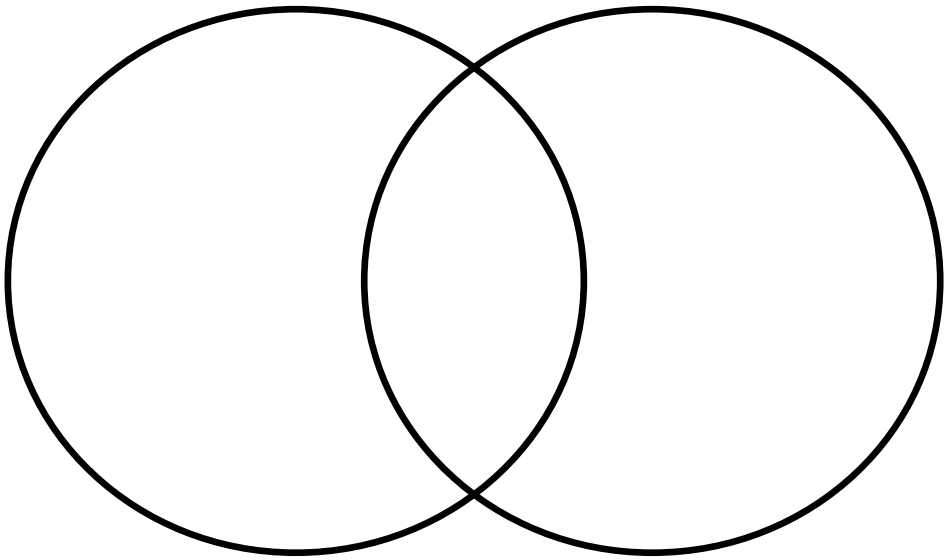
31.01.2022

Fining multiples, factors and common factors

×	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12
2	0	2	4	6	8	10	12	14	16	18	20	22	24
3	0	3	6	9	12	15	18	21	24	27	30	33	36
4	0	4	8	12	16	20	24	28	32	36	40	44	48
5	0	5	10	15	20	25	30	35	40	45	50	55	60
6	0	6	12	18	24	30	36	42	48	54	60	66	72
7	0	7	14	21	28	35	42	49	56	63	70	77	84
8	0	8	16	24	32	40	48	56	64	72	80	88	96
9	0	9	18	27	36	45	54	63	72	81	90	99	108
10	0	10	20	30	40	50	60	70	80	90	100	110	120
11	0	11	22	33	44	55	66	77	88	99	110	121	132
12	0	12	24	36	48	60	72	84	96	108	120	132	144



01.02.2022

Identifying prime numbers

In your maths book, use the array method to prove whether these numbers are prime or composite (not prime)

15, 16, 17, 19

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

Wednesday 02.02.2022 *Worksheet one*

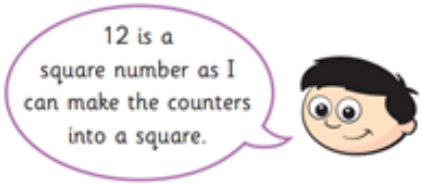
MPI: recognising and using square numbers and cube numbers

Which of these numbers are square numbers?

Circle your answers.

4 **10** **18** **25**

Dexter makes a square using 12 counters.

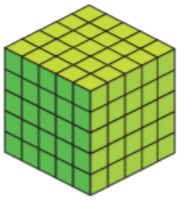


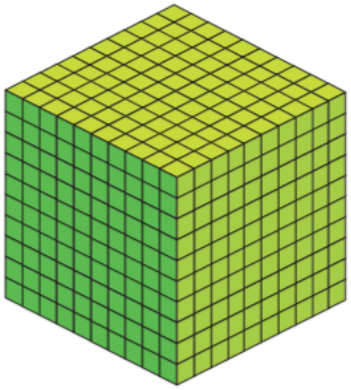
What mistake has Dexter made?

_____

Complete the statements.

Use the cubes to help you.





a) 5^3 = ☐

5 cubed = ☐

5 × 5 × 5 = ☐

b) 10^3 = ☐

10 cubed = ☐

10 × 10 × 10 = ☐

Whitney is working out a calculation.

8 × 8 = 16

What mistake has Whitney made?

_____

a) Complete the table of cube numbers.

2^3	2 × 2 × 2	8
3^3	3 × 3 × 3	
4^3	4 × 4 × 4	

b) What would the next cube number in the table be?

☐^{3} = ☐ × ☐ × ☐ = ☐

Complete the statements.

a) 6^2 = ☐

b) 12^2 = ☐

c) ☐ = 9^2

d) 0^2 = ☐

e) ☐^{2} = 100

f) 64 = ☐^{2}

Which calculation is the same as 6^3?

Tick your answer.

6 × 3 ☐ 6 + 6 + 6 ☐ 6 × 6 × 6 ☐

Wednesday 02.02.2022 *Worksheet two*

MPI: recognising and using square numbers and cube numbers

Write <, > or =

2 squared ◯ 2 cubed

2 squared ◯ 2 × 2

2 squared ◯ 4

2 squared ◯ 1 cubed

Complete the table.

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

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

Kim has worked out 6^3 using this method.

$6^3 = (6 \times 6) \times 6$

$= 36 \times 6$

$= 216$

	30	6
6	30 × 6 = 180	6 × 6 = 36

180 + 36 = 216

Dexter works out 20 squared

Annie works out 20 cubed

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

Scott's age is a cube number.

His sister is 2 years younger than him.

Her age is a square number.

In 3 years, Scott's age will be a multiple of 10

How old is Scott?