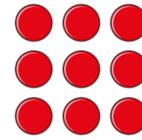


Square and cube numbers

- 1 Use counters to show that 4, 9 and 16 are square numbers.
Draw your answers.



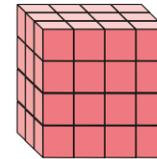
- 2 Match the representations.



4 cubed



3 squared



4 x 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 | | |
| <input data-bbox="1834 1791 1944 1875" type="text"/> ² | | 25 |
| | $5 \times 5 \times 5$ | |



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

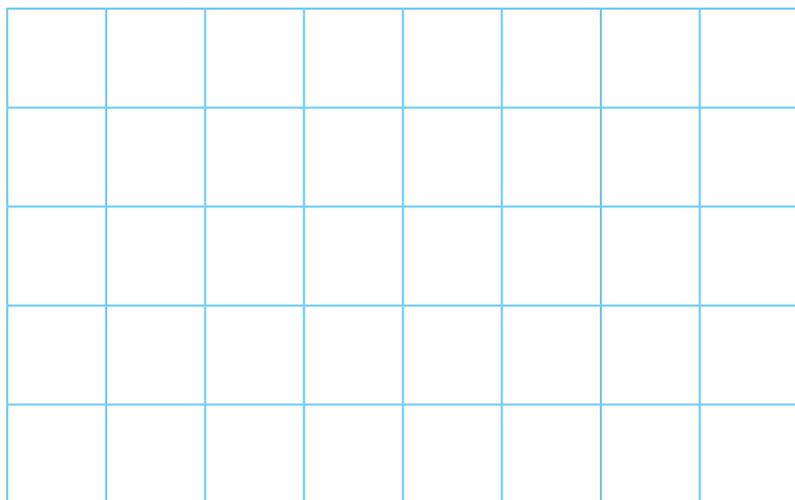
2 squared 2 cubed

2 squared 2×2

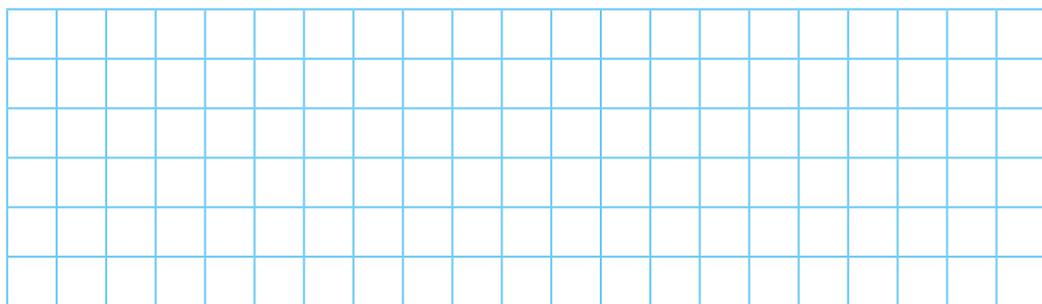
2 squared 4

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



8 Dexter works out 20 squared.

Annie works out 20 cubed.

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

9 a)

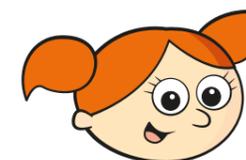
I am thinking of 2 numbers. When I add them I get a prime number. When I multiply them I get a square number.



What numbers could Mo be thinking of?

b)

I am thinking of 2 numbers. When I add them I get a square number. When I multiply them I get a prime number.



What numbers could Alex be thinking of?

