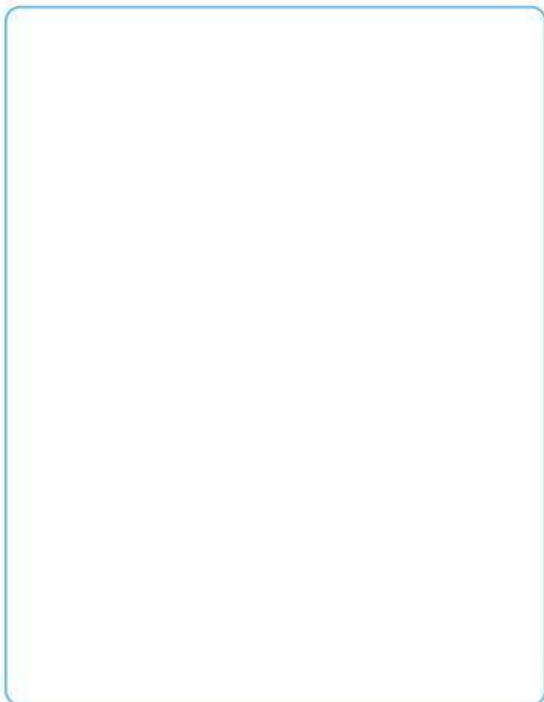


Square and cube numbers

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




- 2 Match the representations to the labels.



4 cubed



3 squared



4×4

4^2

2^3

- 3 Here is a $2 \times 2 \times 2$ cube made of 8 small cubes.
How many small 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		
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 two 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 two 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?