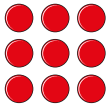
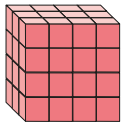
Square and cube numbers

1 Use counters to show that 4, 9 and 16 are square numbers.

Draw your answers.

2 Match the representations.





4^2

4 cubed

3 squared

4 × 4

2^3

3 Here is a 2 × 2 × 2 cube. 

How many cubes do you need to build a 3 × 3 × 3 cube?

4 Complete the table.

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

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

2 squared ◯ 2 cubed

2 squared ◯ 2 × 2

2 squared ◯ 4

2 squared ◯ 1 cubed

4 Complete the table.

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

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

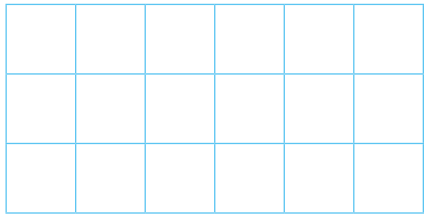
2 squared ◯ 2 cubed

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.



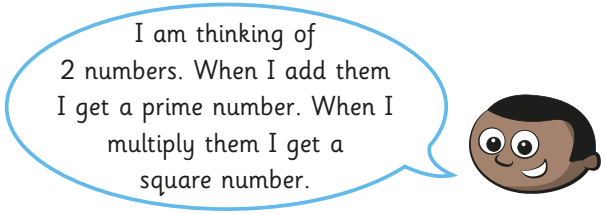
7 Find four square numbers between 100 and 200

8 Dexter works out 20 squared.

Annie works out 20 cubed.

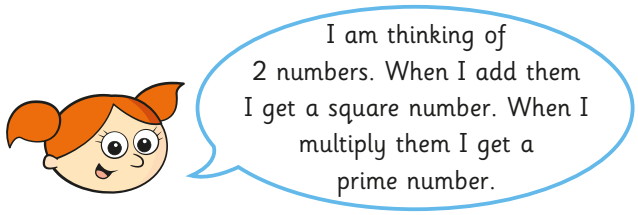
Find the difference between Dexter's and Annie's numbers.

9 **a)**



What numbers could Mo be thinking of?

b)



What numbers could Alex be thinking of?