Parent Guide

How can I use this with my children?

Read the explanations of what square and cube numbers are with your child before encouraging them to complete the tables and calculate the missing numbers.

How does this help my children's learning?

Working through these activities can help your child practise and revise their skills of finding square and cube numbers in line with national curriculum objectives for year 5 onwards.

Ideas for further learning:

Print these **0 – 10 number cards**, shuffle them and place them face down on the table. Ask your child to pick one at random then see if they can find the square followed by the cube of the number.

Using Square and Cube Numbers

Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}).

Square Numbers

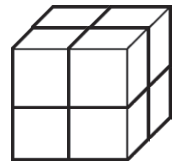The product of a number multiplied by itself. Can be illustrated as a square, e.g 2^2 = 2 squared = 2 × 2 = 4
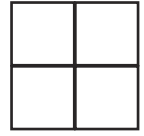
A. Complete the table.

1^2	1 × 1	1
2^2		4
3^2	3 × 3	
	4 × 4	16
5^2		
		36
	7 × 7	
8^2		
10^2		100

Cube Numbers

The product of multiplying a digit by itself three times. Can be illustrated as a cube, e.g. 2^3 = 2 cubed = 2 × 2 × 2 = 8

B. Complete the table.

1^3	1 × 1 × 1	1
2^3	2 × 2 × 2	
3^3		27
	4 × 4 × 4	64
5^3	5 × 5 × 5	
6^3	6 × 6× 6	
		343
8^3		512
	9 × 9 × 9	729
10^3		

C. Calculate the missing numbers.

a) $7^2 + 4^3$ =	b) $8^2 + 10^2$ =	c) $5^3 - 5^2$ =
d) $5^2 +$ _____ = 89	e) _____ $- 8^2$ = 17	f) $3^2 × 2^3$ =
g) $3^2 +$ _____ = 5^2	h) $6^3 ÷ 2^2$ =	i) 13^2 =
j) $10^3 - 2^2$ =	k) 100^2 =	l) _____^{2} = 144

Using Square and Cube Numbers
Answers

A. Complete the table.

1^2	1 × 1	1
2^2	**2 × 2**	4
3^2	3 × 3	**9**
4^2	4× 4	16
5^2	**5 × 5**	**25**
6^2	**6 × 6**	36
7^2	7 × 7	**49**
8^2	**8 × 8**	64
9^2	**9 × 9**	81
10^2	**10 × 10**	100

B. Complete the table.

1^3	1 × 1 × 1	1
2^3	2 × 2 × 2	**8**
3^3	**3 × 3 × 3**	27
4^3	4 × 4 × 4	64
5^3	5 × 5 × 5	**125**
6^3	6 × 6× 6	**216**
7^3	**7 × 7 × 7**	343
8^3	**8 × 8 × 8**	512
9^3	9 × 9 × 9	729
10^3	**10 × 10 × 10**	**1000**

C. Calculate the missing numbers.

a) $7^2 + 4^3$ = **113**	b) $8^2 + 10^2$ = **164**	c) $5^3 - 5^2$ = **100**
d) $5^2 + \mathbf{8^2}$ = 89	e) $\mathbf{9^2} - 8^2$ = 17	f) $3^2 × 2^3$ = **72**
g) $3^2 + \mathbf{4^2}$ = 5^2	h) $6^3 ÷ 2^2$ = **54**	i) 13^2 = **169**
j) $10^3 - 2^2$ = **996**	k) 100^2 = **10 000**	l) $\mathbf{12^2}$ = 144