



Key Instant Recall Facts (KIRFS) I can recall square numbers up to 12 squared and their square roots. I can recall cube number to 10 cubed and their cube roots.

$$1^2 = 1 \times 1 = 1$$

$$2^2 = 2 \times 2 = 4$$

$$3^2 = 3 \times 3 = 9$$

$$4^2 = 4 \times 4 = 16$$

$$5^2 = 5 \times 5 = 25$$

$$6^2 = 6 \times 6 = 36$$

$$7^2 = 7 \times 7 = 49$$

$$8^2 = 8 \times 8 = 64$$

$$9^2 = 9 \times 9 = 81$$

$$10^2 = 10 \times 10 = 100$$

$$11^2 = 11 \times 11 = 121$$

$$12^2 = 12 \times 12 = 144$$

$$\sqrt{1} = 1$$

$$\sqrt{4} = 2$$

$$\sqrt{9} = 3$$

$$\sqrt{16} = 4$$

$$\sqrt{25} = 5$$

$$\sqrt{36} = 6$$

$$\sqrt{49} = 7$$

$$\sqrt{64} = 8$$

$$\sqrt{81} = 9$$

$$\sqrt{100} = 10$$

$$\sqrt{121} = 11$$

$$\sqrt{144} = 12$$

Cube root	Notation	Calculation	Cube number
1	1^3	$1 \times 1 \times 1$	1
2	2^3	$2 \times 2 \times 2$	8
3	3^3	$3 \times 3 \times 3$	27
4	4^3	$4 \times 4 \times 4$	64
5	5^3	$5 \times 5 \times 5$	125
6	6^3	$6 \times 6 \times 6$	216
7	7^3	$7 \times 7 \times 7$	343
8	8^3	$8 \times 8 \times 8$	512
9	9^3	$9 \times 9 \times 9$	729
10	10^3	$10 \times 10 \times 10$	1000

Year 5

Autumn 2

Focus on learning your squares and square roots first.

If you have already mastered those and can recall them fluently, go on to learn

What can I do at home?

Hit The Button square numbers game: [Hit the Button - Quick fire maths practise for 6-11 year olds \(topmarks.co.uk\)](https://www.topmarks.co.uk/Hit-the-Button)

[What is a square number and what is a cube number? - BBC Bitesize](https://www.bbc.com/bitesize/primary/5/revision/numbers/revision/1)

Vocabulary

Square Number	The product of a number multiplied by itself e.g. $2 \times 2 = 4$
Square Root	A square root is the opposite of squaring a number e.g. 6 is the square root of 36 because $6 \times 6 = 36$.
Squared	To multiply a number by itself.
Product	The answer to a multiplication question.