

SQUARE ROOTS & PERFECT SQUARES

To understand square roots, first let's take a look at squares.

How to Square a Number: Just multiply it by itself.

Squares from 1² to 12²

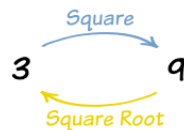


PERFECT SQUARES

1 Squared = 1 ² = 1 × 1 = 1	X	1	2	3	4	5	6	7	8	9	10	11	12
2 Squared = 2 ² = 2 × 2 = 4	1	1	2	3	4	5	6	7	8	9	10	11	12
3 Squared = 3 ² = =	2	2	4	6	8	10	12	14	16	18	20	22	24
4 Squared = 4 ² = =	3	3	6	9	12	15	18	21	24	27	30	33	36
5 Squared = 5 ² = =	4	4	8	12	16	20	24	28	32	36	40	44	48
6 Squared = 6 ² = =	5	5	10	15	20	25	30	35	40	45	50	55	60
7 Squared = 7 ² = =	6	6	12	18	24	30	36	42	48	54	60	66	72
8 Squared = 8 ² = =	7	7	14	21	28	35	42	49	56	63	70	77	84
9 Squared = 9 ² = =	8	8	16	24	32	40	48	56	64	72	80	88	96
10 Squared = 10 ² = =	9	9	18	27	36	45	54	63	72	81	90	99	108
11 Squared = 11 ² = =	10	10	20	30	40	50	60	70	80	90	100	110	120
12 Squared = 12 ² = =	11	11	22	33	44	55	66	77	88	99	110	121	132
	12	12	24	36	48	60	72	84	96	108	120	132	144

Square Roots:

A square root goes the other way:



3 squared is 9, so a **square root** of 9 is 3

A square root of a number is a value that can be **multiplied by itself** to give the original number.

A square root of **9** is **3**, because **when 3 is multiplied by itself** we get **9**.

It is like asking "what can we multiply by itself to get this?"

The Square Root Symbol

√ This is the special symbol that means "square root". It is called the **radical**.

To Help You Remember: Think of the root of a tree.

