

Then we multiply 215 by 5, which gives 1075; we add this to 14700; we multiply the result, 15775, by 5; and subtract the product, 78875, from 85661; and to the remainder we annex the third period, 064.

We then set down three times 75, which is 225, and three times the square of 75, which is 16875.

N.B. This last result can be obtained by setting the square of 5, the second figure of the root, under the second divisor, and adding the three numbers coupled by the bracket.

We then annex two zeros to 16875 and repeat the process explained above to find 4, the third figure of the cube root, which is in this case 754.

Examples II

Find the Cube Roots of

- | | | |
|---------------|----------------|-------------------|
| 1. 14706125. | 7. 99252847. | 13. 322828856. |
| 2. 149721291. | 8. 1092727. | 14. 354894912. |
| 3. 28931443. | 9. 16777216. | 15. 700227072. |
| 4. 300763000. | 10. 194104539. | 16. 134217728. |
| 5. 2097152. | 11. 84027672. | 17. 122615327232. |
| 6. 5735339. | 12. 130323843. | 18. 673373097125. |

11. To extract the Cube Root of a Decimal Fraction.

In order that a Decimal Fraction may be a Perfect Cube, it must be of the 3rd, 6th, 9th . . . order; the index of the order being some multiple of 3.

We then proceed in the following way :—

Ex. 1. To find the Cube Root of .343.

$$\sqrt[3]{.343} = \sqrt[3]{\frac{343}{1000}} = \frac{7}{10} = .7.$$

Ex. 2. To find the Cube Root of .039304.

$$\sqrt[3]{.039304} = \sqrt[3]{\frac{39304}{1000000}} = \frac{34}{100} = .34.$$