

ained in 15; $\therefore$ place 2 in the form of a quotient to the right of the given number.

Cube 2, and put down its cube, viz. 8, under the 15; subtract it from the 15, and to the rem^r. 7 affix the next period 625, thus forming the number 7625. Take 3×2^2 , or 12, for a divisor; divide 76 by 12, 12 is contained 6 times in 76; but when the other terms of the divisor are brought down 6 would be found too great, therefore try 5. Affix the 5 to the 2 before obtained; and calculate the value of $3 \times (20)^2 + 3 \times 20 \times 5 + 5^2$, which is 1525; multiplying 1525 by 5 we obtain 7625, which being subtracted from 7625 before formed leaves no rem^r.; $\therefore$ 25 is the cube root req^d.

Ex. 2. Find the cube root of 219'365327791.

Place the first dot over the 9 in the units' place.

219'365327791(6'031

$$6^3 = 216$$

$$3 \times 6^2 = 108$$

$$3 \times (60)^2 = 10800$$

$$3 \times (600)^2 = 1080000$$

$$3 \times 600 \times 3 = 5400$$

$$3^2 = 9$$

$$1085409$$

$$8$$

$$3256227$$

$$3365$$

$$3365327$$

33 is not divisible by 108; bring down the next period and affix 0 to the root; the trial divisor will then be $3 \times (60)^2 = 10800$, and $33653 \div 10800$ goes 3 times, try 3.

$$3256227$$

$$109100$$

$$109100791$$

bring down next period 1091007+1090827 goes once, try 1.

$$3 \times (603)^2 = 1090827$$

$$3 \times (6030)^2 = 109082700$$

$$3 \times 6030 \times 1 = 18090$$

$$1^2 = 1$$

$$109100791$$

$$109100791$$

$\therefore$ 6'031 is the cube root required.

Ex. 3. Find the cube root of '000007 to three places of decimals.

'000007000(0'19

$$1$$

$$6000$$

$$8 \times 1^2 = 8$$

$$3 \times (10)^2 = 300$$

$$3 \times 10 \times 9 = 270$$

$$9^2 = 81$$

$$651$$

$$9$$

$$5859$$

$$5859$$

$$141$$