Detailed Answer Key: Vedic Maths Cube Root Worksheet

Number: 1331

Last digit: $1 \rightarrow \text{Units digit of cube root: } 1$

Remaining digits: $1 \rightarrow \text{Nearest cube} \le 1 \text{ is } 1^3 = 1$

Estimated cube root: 11 → Final Answer: 11 (Check: 11 x 11 x 11 = 1331)

Number: 1728

Last digit: 8 → Units digit of cube root: 2

Remaining digits: $1 \rightarrow \text{Nearest cube} \le 1 \text{ is } 1^3 = 1$

Estimated cube root: $12 \rightarrow$ Final Answer: 12 (Check: $12 \times 12 \times 12 = 1728$)

Number: 2197

Last digit: 7 → Units digit of cube root: 3

Remaining digits: $2 \rightarrow \text{Nearest cube} \le 2 \text{ is } 1^3 = 1$

Estimated cube root: $13 \rightarrow$ Final Answer: 13 (Check: $13 \times 13 \times 13 = 2197$)

Number: 2744

Last digit: 4 → Units digit of cube root: 4

Remaining digits: $2 \rightarrow \text{Nearest cube} \le 2 \text{ is } 1^3 = 1$

Estimated cube root: $14 \rightarrow$ Final Answer: 14 (Check: $14 \times 14 \times 14 = 2744$)

Number: 3375

Last digit: $5 \rightarrow \text{Units digit of cube root: } 5$

Remaining digits: $3 \rightarrow \text{Nearest cube} \le 3 \text{ is } 1^3 = 1$

Estimated cube root: $15 \rightarrow$ Final Answer: 15 (Check: $15 \times 15 \times 15 = 3375$)

Number: 4096

Last digit: 6 → Units digit of cube root: 6

Remaining digits: $4 \rightarrow \text{Nearest cube} \le 4 \text{ is } 1^3 = 1$

Estimated cube root: $16 \rightarrow$ Final Answer: 16 (Check: $16 \times 16 \times 16 = 4096$)

Number: 4913

Last digit: $3 \rightarrow \text{Units digit of cube root: } 7$

Remaining digits: $4 \rightarrow \text{Nearest cube} \le 4 \text{ is } 1^3 = 1$

Estimated cube root: $17 \rightarrow$ Final Answer: 17 (Check: $17 \times 17 \times 17 = 4913$)

Number: 5832

Last digit: 2 → Units digit of cube root: 8

Remaining digits: $5 \rightarrow \text{Nearest cube} \le 5 \text{ is } 1^3 = 1$

Estimated cube root: $18 \rightarrow \text{Final Answer: } 18 \text{ (Check: } 18 \times 18 \times 18 = 5832)$

Number: 6859

Last digit: 9 → Units digit of cube root: 9

Remaining digits: $6 \rightarrow \text{Nearest cube} \le 6 \text{ is } 1^3 = 1$

Estimated cube root: $19 \rightarrow$ Final Answer: 19 (Check: $19 \times 19 \times 19 = 6859$)

Number: 8000

Last digit: $0 \rightarrow \text{Units digit of cube root: } 0$

Remaining digits: $8 \rightarrow \text{Nearest cube} \le 8 \text{ is } 2^3 = 8$

Estimated cube root: 20 → Final Answer: 20 (Check: 20 × 20 × 20 = 8000)

Number: 9261

Last digit: $1 \rightarrow \text{Units digit of cube root: } 1$

Remaining digits: $9 \rightarrow \text{Nearest cube} \le 9 \text{ is } 2^3 = 8$

Estimated cube root: 21 → Final Answer: 21 (Check: 21 × 21 × 21 = 9261)

Number: 10648

Last digit: 8 → Units digit of cube root: 2

Remaining digits: $10 \rightarrow \text{Nearest cube} \le 10 \text{ is } 2^3 = 8$

Estimated cube root: 22 → Final Answer: 22 (Check: 22 x 22 x 22 = 10648)

Number: 12167

Last digit: 7 → Units digit of cube root: 3

Remaining digits: $12 \rightarrow \text{Nearest cube} \le 12 \text{ is } 2^3 = 8$

Estimated cube root: $23 \rightarrow \text{Final Answer: } 23 \text{ (Check: } 23 \times 23 \times 23 = 12167)$

Number: 13824

Last digit: 4 → Units digit of cube root: 4

Remaining digits: $13 \rightarrow \text{Nearest cube} \le 13 \text{ is } 2^3 = 8$

Estimated cube root: 24 → Final Answer: 24 (Check: 24 x 24 x 24 = 13824)

Number: 15625

Last digit: $5 \rightarrow \text{Units digit of cube root: } 5$

Remaining digits: $15 \rightarrow \text{Nearest cube} \le 15 \text{ is } 2^3 = 8$

Estimated cube root: $25 \rightarrow$ Final Answer: 25 (Check: $25 \times 25 \times 25 = 15625$)

Number: 17576

Last digit: 6 → Units digit of cube root: 6

Remaining digits: $17 \rightarrow \text{Nearest cube} \le 17 \text{ is } 2^3 = 8$

Estimated cube root: $26 \rightarrow$ Final Answer: 26 (Check: $26 \times 26 \times 26 = 17576$)

Number: 19683

Last digit: $3 \rightarrow \text{Units digit of cube root: } 7$

Remaining digits: $19 \rightarrow \text{Nearest cube} \le 19 \text{ is } 2^3 = 8$

Estimated cube root: $27 \rightarrow \text{Final Answer: } 27 \text{ (Check: } 27 \times 27 \times 27 = 19683)$

Number: 21952

Last digit: 2 → Units digit of cube root: 8

Remaining digits: $21 \rightarrow \text{Nearest cube} \le 21 \text{ is } 2^3 = 8$

Estimated cube root: 28 → Final Answer: 28 (Check: 28 x 28 x 28 = 21952)

Number: 24389

Last digit: $9 \rightarrow \text{Units digit of cube root: } 9$

Remaining digits: $24 \rightarrow \text{Nearest cube} \le 24 \text{ is } 2^3 = 8$

Estimated cube root: $29 \rightarrow \text{Final Answer: } 29 \text{ (Check: } 29 \times 29 \times 29 = 24389)$

Number: 27000

Last digit: $0 \rightarrow \text{Units digit of cube root: } 0$

Remaining digits: $27 \rightarrow \text{Nearest cube} \le 27 \text{ is } 3^3 = 27$

Estimated cube root: $30 \rightarrow$ Final Answer: 30 (Check: $30 \times 30 \times 30 = 27000$)