

Foundation Batch



MATHS

**Square and Square Root
Cube and Cube Root**

LIVE

27-11-2024 07:00PM



Two digit Numbers
Square

$$(42)^2 = 1764$$

1-32	→ Square
1-15	→ Cube

①

$$(47)^2 \rightarrow (40+7)^2$$
$$a^2 + b^2 + 2ab$$
$$\begin{array}{r} 1600 + 49 + 2 \times 280 \\ \hline \end{array}$$

④

⑥

$$\underline{\underline{2209}}$$

$$(\underline{54})^2 = \underline{\underline{2916}}$$

①
④

$$(\underline{59})^2 = \underline{\underline{3481}}$$

⑧
⑨

$$(\underline{63})^2 = \underline{\underline{3969}}$$

③

$$(\overbrace{67})^2 = 4489$$

$$(\overbrace{71})^2 = \underline{\underline{5041}}$$

$$(\overbrace{76})^2 = \underline{\underline{5776}}$$

$$(\overbrace{82})^2 = \underline{\underline{6724}}$$

$$(\overbrace{88})^2 = \underline{\underline{7744}}$$

① ⑧⁴

⑧³

3

⑥
⑬

$$(91)^2 = \underline{\underline{8281}}$$

$$(99)^2 = \underline{\underline{9801}}$$

$$\begin{array}{r} 8 \\ \textcircled{17} \\ 81 \end{array}$$

$$(102)^2 = 100 + 2$$

$$\underline{\underline{10404}}$$

Base value

$$\left\{ \begin{array}{l} 100 \rightarrow 1 \\ 150 \rightarrow 1.5 = \frac{3}{2} \\ 200 \rightarrow 2 \\ 300 \rightarrow 3 \\ 250 \rightarrow 2.5 = \frac{5}{2} \end{array} \right\}$$

$$\begin{array}{r} (101)^2 = \\ +1 \\ \hline 102 \end{array}$$

$$\underline{\underline{10201}}$$

$$\begin{array}{r} (106)^2 = \\ +6 \\ \hline 112 \end{array}$$

$$\underline{\underline{11236}}$$

$$\begin{array}{r} (107)^2 = \\ +7 \\ \hline 114 \end{array}$$

$$\underline{\underline{11449}}$$

$$\begin{array}{r} (112)^2 = \\ +12 \\ \hline 124 \end{array}$$

$$\underline{\underline{12544}}$$

$$\textcircled{144}$$

$$\begin{array}{r} (117)^2 \\ + 17 \\ \hline 134 \end{array}$$

$$\textcircled{289}$$

$$\underline{\underline{13689}}$$

$$\begin{array}{r} (154)^2 \\ + 4 \\ \hline 158 \end{array}$$

$$\begin{array}{r} 79 \\ 158 \times \frac{3}{2} = 237 \end{array}$$

$$\underline{\underline{23716}}$$

2

$$(158)^2$$

$$\begin{array}{r} 158 \\ + 8 \\ \hline 166 \end{array}$$

$$\begin{array}{r} 83 \\ 166 \times 3 \\ \hline 2 \end{array}$$

$$\underline{\underline{24964}}$$

$$(146)^2 =$$

$$\begin{array}{r} 146 \\ - 4 \\ \hline 142 \end{array}$$

$$\begin{array}{r} 71 \\ 142 \times 3 \\ \hline 213 \end{array}$$

$$\underline{\underline{21316}}$$

$$\begin{array}{r} (142)^2 \\ - 8 \\ \hline 134 \end{array}$$

$$67 \quad 134 \times \frac{3}{2}$$

$$\underline{\underline{20164}}$$

$$\begin{array}{r} (207)^2 \\ + 7 \\ \hline 214 \end{array}$$

$$214 \times 2 \\ = 428$$

$$\underline{\underline{42849}}$$

$$\begin{array}{r}
 222 \times 2 \\
 \hline
 444
 \end{array}
 \quad
 \begin{array}{r}
 (211)^2 = \\
 \begin{array}{r}
 211 \\
 +11 \\
 \hline
 222
 \end{array}
 \end{array}$$

445 21

①21

$$\begin{array}{r}
 226 \times 2 \\
 \hline
 452
 \end{array}
 \quad
 \begin{array}{r}
 (213)^2 = \\
 \begin{array}{r}
 213 \\
 +13 \\
 \hline
 226
 \end{array}
 \end{array}$$

453 69

①69

किसी भी संख्या का Square के Last two Digit



1 से 25 तक की संख्याओं के Square के last two digit होंगे

ex. $93^2 = 8649$

$7^2 = 49$

$$\begin{aligned}
 1^2 &= 1 \\
 2^2 &= 4 \\
 3^2 &= 9 \\
 4^2 &= 16 \\
 5^2 &= 25 \\
 6^2 &= 36 \\
 7^2 &= 49 \\
 8^2 &= 64 \\
 9^2 &= 81
 \end{aligned}$$

$$\sqrt{1849}$$

Diagram showing the prime factorization of 1849:

 $1849 = 43^2$

 The factors 43 and 43 are circled in orange.

$$\sqrt{6084}$$

Diagram showing the prime factorization of 6084:

 $6084 = 78^2$

 The factors 78 and 78 are circled in orange.

