

FlexiPrep

NCERT Class 8 Mathematics Solutions: Chapter 6 – Squares and Square Roots Exercise 6.4 Part 5 (For CBSE, ICSE, IAS, NET, NRA 2022)

Get top class preparation for CBSE/Class-8 right from your home: [get questions, notes, tests, video lectures and more](#)- for all subjects of CBSE/Class-8.

9	8888 (94 --- Quotient
	81
184	788
	736
	52 ---- Remainder

©FlexiPrep. Report @violations @<https://tips.fbi.gov/>

Question: 4 Find the least number which must be subtracted from each of the following numbers so as to get a perfect square. Also, find the square root of the perfect square so obtained:

(i) 402

(ii) 1989

(iii) 3250

(iv) 825

(v) 4000

Answer:

(i) 402

$$\begin{array}{r|l}
 & 20 \\
 \hline
 2 & \underline{40} \underline{2} \\
 & - 4 \\
 \hline
 40 & \underline{00} \underline{2} \\
 & - 000 \\
 \hline
 & 2
 \end{array}$$

©FlexiPrep. Report @violations @<https://tips.fbi.gov/>

Here, the remainder is 2.

We know that, if we subtract the remainder from the number we get a perfect square.

Therefore 2 must be subtracted from 402 to get a perfect square

$$\therefore 402 - 2 = 400$$

	2 0
2	<u>4</u> <u>00</u>
	- 4
00	0 00
	0 00
	0

©FlexiPrep. Report ©violations @<https://tips.fbi.gov/>

i.e. $\sqrt{400} = 20$

Hence, the square root of 400 is 20.

(ii) 1989

	4 4
4	<u>19</u> <u>89</u>
	- 16
84	389
	-336
	53

©FlexiPrep. Report ©violations @<https://tips.fbi.gov/>

We know that, if we subtract the remainder from the number, we get a perfect square.

Therefore 44 must be subtracted from 1989 to get a perfect square

$$\therefore 1989 - 53 = 1936$$

	44
4	<u>19</u> <u>36</u>
	- 16
84	336
	-336
	0

©FlexiPrep. Report ©violations @<https://tips.fbi.gov/>

i.e. $\sqrt{1936} = 44$

Hence, the square root of 1936 is 44.

(iii)

Given, 3250

We know that, if we subtract the remainder from the number we get a perfect square.

	57
5	<u>32</u> <u>50</u>
	- 25
107	750
	- 749
	1

©FlexiPrep. Report ©violations @<https://tips.fbi.gov/>

Therefore 1 must be subtracted from 3250 to get a perfect square

$$\therefore 3250 - 1 = 3249$$

$$\text{i.e. } \sqrt{3249} = 57$$

$$\begin{array}{r|l}
 & 57 \\
 \hline
 5 & \underline{32} \ \underline{49} \\
 & - 25 \\
 \hline
 107 & 749 \\
 & - 749 \\
 \hline
 & 0
 \end{array}$$

©FlexiPrep. Report ©violations @<https://tips.fbi.gov/>

Hence, the square root of 3249 is 57.

(iv) 825

Give, 825

We know that, if we subtract the remainder from the number, we get a perfect square.

	28
2	<u>8</u> <u>25</u>
	- 4
48	425
	- 384
	41

©FlexiPrep. Report ©violations @<https://tips.fbi.gov/>

Therefore 41 must be subtracted from 825 to get a perfect square.

$$\therefore 825 - 41 = 784$$

$$\text{i.e. } \sqrt{784} = 28$$

$$\begin{array}{r|l}
 & 28 \\
 \hline
 2 & \underline{784} \\
 & -4 \\
 \hline
 48 & 384 \\
 & -384 \\
 \hline
 & 0
 \end{array}$$

©FlexiPrep. Report ©violations @<https://tips.fbi.gov/>

Hence, the square root of 784 is 28.

(v) 4000

Given, 4000

We know that, if we subtract the remainder from the number,
we get a perfect square.

$$\begin{array}{r|l}
 & 63 \\
 \hline
 6 & \underline{40} \ \underline{00} \\
 & - 36 \\
 \hline
 123 & 400 \\
 & - 369 \\
 \hline
 & 31
 \end{array}$$

©FlexiPrep. Report ©violations @<https://tips.fbi.gov/>

Therefore 31 must be subtracted from 4000 to get a perfect square

$$\therefore 4000 - 31 = 3969$$

$$\begin{array}{r|l} & 63 \\ \hline 6 & \underline{39} \underline{69} \\ & - 36 \\ \hline 123 & 369 \\ & - 369 \\ \hline & 0 \end{array}$$

[©FlexiPrep. Report ©violations @https://tips.fbi.gov/](https://tips.fbi.gov/)

Hence, the square root of 3969 is 63.

Developed by: [Mindsprite Solutions](#)