

CLASS 8 · HOTS · OLYMPIAD PREPARATION · DPP SHEET

Chapter 1: HOTS: A Square and a Cube (Class 8)

Daily practice problems: 8 questions with an answer key

Try every question on your own first. The answer key is on the last page.

1. Find the square root of 5929 by prime factorisation.
2. Find the smallest number by which 72 must be multiplied to get a perfect cube.
3. Find the smallest number by which 1944 must be divided to get a perfect cube.
4. Find the cube root of 13 824.
5. Find the sum of the first 20 odd numbers.
6. How many numbers lie between 25^2 and 26^2 ?
7. Write a Pythagorean triplet whose smallest member is 10.
8. Is 1234 a perfect square? Give a reason.

Answer Key

1. 77 ($5929 = 7^2 \times 11^2$).
2. 3 (the product is $216 = 6^3$).
3. 9 ($1944 = 2^3 \times 3^5$, and the quotient is 216).
4. 24.
5. 400.
6. 50.
7. 10, 24, 26 (using $2m$, $m^2 - 1$ and $m^2 + 1$ with $m = 5$).
8. No. $35^2 = 1225$ and $36^2 = 1296$, and 1234 lies between them.

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