

Class 8 Mathematics – Question Paper

Chapters:

1. A Square and a Cube
 2. Power Play **Maximum Marks:** 30 **Time:** 1½ hours
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Section A – Very Short Answer Questions (1 mark each)

1. Write the next two perfect squares after 292^2 that end with digit 1.
 2. If 1936 is a perfect square, find its square root without prime factorisation.
 3. Express the following in exponential form: $7 \times 7 \times 7 \times 7 \times 7$.
 4. Find the value of 10^{-3} in fractional form.
 5. Which of the following numbers is **not** a perfect cube? 27, 125, 216, 100.
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Section B – Short Answer Questions (2 marks each)

6. The area of a square park is 441 m^2 . Find the length of its side.
 7. Write the prime factorisation of 32400 and express it in exponential form.
 8. If $4^5 \div 4^2 = 4^n$, find the value of n.
 9. Using the difference of consecutive squares, find 37^2 if $36^2 = 1296$.
 10. Which numbers between 1 and 100 will remain open in the locker puzzle?
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Section C – Application-Based Questions (3 marks each)

11. Write 70,04,00,00,000 in scientific notation.
 12. A cube has volume 2197 cm^3 . Find the length of its edge.
 13. A pond gets completely covered with lotuses in 30 days due to doubling every day. On which day will it be $\frac{1}{8}$ th full?
 14. Find the smallest square number divisible by 4, 9, and 10.
 15. If $p^4 \times p^6 = p^k$, find k and also write $(p^4)^3$ in exponential form.
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