74. Understanding Powers and Roots

Practice Questions

1. Calculate 4^2.

2. Solve 3^3.

3. Find the square root of 64.

4. Express 10,000 as a power of 10.

5. What is $\sqrt{81}$?

6. Write 125 as a power of 5.

7. Simplify $\left(2^2\right)^3$.

8. What is the cube root of 27?

9. Solve $x^2 = 49$.

10. What is 5^4?

Scenario Questions

1. A square has an area of 36 cm². Find its side length.

2. A football pitch is 100m × 100m. Express its area as a power of 10.

3. A storage box has a volume of 27 m³. Find the length of one side if it's a cube.

4. A scientist magnifies a cell 10^4 times. Express this as a normal number.

5. A builder uses 25^2 bricks. How many bricks is this?

6. A company increases production by 3^3 times. How much is the increase?

7. A car factory produces 10^3 cars in a year. How many cars is this?

8. A lightbulb lasts 10^5 hours. Express this as a normal number.

9. A virus multiplies by 2^4 every hour. How many times does it multiply in 4 hours?

10. A teacher asks students to find $\sqrt{121}$. What is the answer?

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Practice Questions

1. 16
2. 27
3. 8
4. 10^4
5. 9
6. 5^3
7. 64
8. 3
9. $x = 7$ or $x = -7$
10. 625

Scenario Questions

1. 6 cm
2. $10^4 \, \text{m}^2$
3. 3 m
4. 10,000
5. 625
6. 27 times
7. 1,000
8. 100,000
9. 16 times
10. 11