CBSE CLASS 8 MATHEMATICS

Chapter 6: Squares and Square Roots

Worksheet | Total Marks: 20 | Time: 45 minutes

SECTION A: Multiple Choice Questions (1 mark each) [5 marks]

Q1. Which of the following is a perfect square? **[1 mark]**

(a) 48 (b) 81 (c) 50 (d) 72

Q2. √(0.0025) equals: **[1 mark]**

(a) 0.5 (b) 0.05 (c) 0.005 (d) 5

Q3. The square of 25 is: **[1 mark]**

(a) 525 (b) 625 (c) 725 (d) 425

Q4. How many digits will be in √(390625)? **[1 mark]**

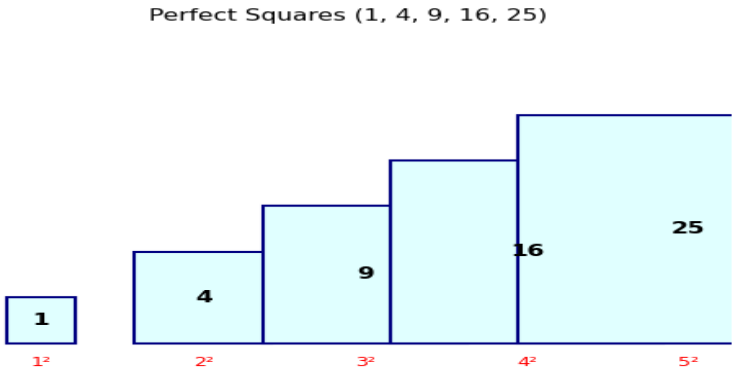
(a) 2 (b) 3 (c) 4 (d) 5

Q5. The square root of 1764 by prime factorisation is: **[1 mark]**

(a) 42 (b) 44 (c) 46 (d) 48

SECTION B: Short Answer Questions (2 marks each) [6 marks]

Q6. Look at the pattern of perfect squares below. Fill in the missing values and describe the pattern. **[2 marks]**



Q7. Without actual multiplication, find whether 5488 is a perfect square. Give reason. **[2 marks]**

Q8. Find √7056 using prime factorisation. Show complete factor tree. **[2 marks]**

SECTION C: Long Answer Questions (3 marks each) [6 marks]

Q9. Find $\sqrt{32761}$ using long division method. Show all steps clearly. **[3 marks]**

Q10. 2000 students are standing in rows and columns such that the number of rows equals the number of columns. Find the number of rows. How many more students are needed to make it a perfect square arrangement? **[3 marks]**

SECTION D: Case Study (3 marks)

Case Study: The Flooring Problem

Meera wants to tile her square room. The area of the room is 1764 sq feet. She buys square tiles of side 1.5 feet. Each tile costs ₹85. She also wants to put a decorative border around the room (perimeter) at ₹120 per foot.

Qi. Find the side of the room. **[1 mark]**

Qii. How many tiles are needed? (tiles cannot be broken) **[1 mark]**

Qiii. Find the total cost of tiling AND the border. **[1 mark]**