Sample Paper · Class 8

Questions	Marks each	Total marks	Time	Answers on
50	**2**	**100**	**1 hour**	**OMR sheet**

Instructions

1. This paper has **50 multiple-choice questions**. Each has four options, and only one is correct.
2. Each question carries **2 marks**. The paper is out of **100 marks**.
3. Time allowed: **1 hour**.
4. In the real exam, mark your answers on the **OMR sheet**. A practice OMR sheet is included before the answer key.
5. Score **70% or more** in Round 1 to qualify for Round 2 (national level).

Name _____ Class 8 Score _____ / 100

School _____

Questions

1. A die is thrown once. What is the probability of getting a number greater than 4?

(A) 2/3 **(B)** 1/3
(C) 1/6 **(D)** 1/4

2. What is the cube root of 5,832?

(A) 15 **(B)** 19
(C) 18 **(D)** 17

3. What is the square root of 8,464?

(A) 90 **(B)** 95
(C) 94 **(D)** 92

4. Using an identity, 103^2 = ?

(A) 10,609 **(B)** 11,609
(C) 10,709 **(D)** 10,600

5. What is the volume of a cylinder with radius 7 cm and height 15 cm? (Take π = 22/7)

(A) 2464 cubic cm **(B)** 2310 cubic cm
(C) 660 cubic cm **(D)** 330 cubic cm

6. An item marked ₹1,500 is sold at a 15% discount. What is the selling price?

(A) ₹225 **(B)** ₹1,725
(C) ₹1,275 **(D)** ₹1,485

7. What is the value of 5^{-3}?

(A) 1/125 **(B)** −1/125
(C) −125 **(D)** 1/15

8. What is the compound interest on ₹5,000 at 10% per year for 2 years, compounded yearly?

(A) ₹1,550 **(B)** ₹1,000
(C) ₹1,050 **(D)** ₹6,050

9. What is each exterior angle of a regular polygon with 10 sides?

(A) 1440° **(B)** 46°
(C) 36° **(D)** 144°

10. 16 workers finish a job in 9 days. How many days will 24 workers take?

(A) 8 **(B)** 9
(C) 5 **(D)** 6

11. $(x + 3)(x + 3) = ?$

(A) $x^2 + 9x + 9$ **(B)** $x^2 + 6x + 9$
(C) $x^2 + 6x + 6$ **(D)** $x^2 + 9x + 6$

12. What is the total surface area of a cuboid 7 cm × 5 cm × 6 cm?

(A) 224 sq cm **(B)** 210 sq cm
(C) 214 sq cm **(D)** 107 sq cm

13. Solve: $x/5 + 6 = 14$

(A) $x = 45$ **(B)** $x = 70$
(C) $x = 8$ **(D)** $x = 40$

14. What is the sum of the interior angles of a polygon with 10 sides?

(A) 720° **(B)** 1620°
(C) 1440° **(D)** 1800°

15. Factorise: $x^2 - 9$

(A) $(x - 3)^2$ **(B)** $(x + 3)(x - 3)$
(C) $(x + 9)(x - 1)$ **(D)** $(x + 3)^2$

16. Solve: $x/3 + 4 = 8$

(A) $x = 4$ **(B)** $x = 15$
(C) $x = 24$ **(D)** $x = 12$

17. What is the sum of the interior angles of a polygon with 9 sides?

(A) 630° **(B)** 1440°
(C) 1620° **(D)** 1260°

18. What is the square root of 2,601?

(A) 47 **(B)** 51
(C) 52 **(D)** 55

19. If 6 kg of rice costs ₹300, what do 15 kg cost?

(A) ₹750 **(B)** ₹675
(C) ₹800 **(D)** ₹450

20. Using an identity, 101^2 = ?

(A) 10,301 **(B)** 10,192
(C) 11,201 **(D)** 10,201

21. Factorise: $x^2 - 49$

(A) $(x + 7)(x - 7)$ **(B)** $(x + 49)(x - 1)$
(C) $(x - 7)^2$ **(D)** $(x + 7)^2$

22. What is each exterior angle of a regular polygon with 9 sides?

(A) 140° **(B)** 40°
(C) 1260° **(D)** 50°

23. A die is thrown once. What is the probability of getting a number which is even?

(A) 1/4 **(B)** 1/6
(C) 2/3 **(D)** 1/2

24. What is the total surface area of a cuboid 7 cm × 8 cm × 7 cm?

(A) 332 sq cm **(B)** 322 sq cm
(C) 392 sq cm **(D)** 161 sq cm

25. 10 workers finish a job in 18 days. How many days will 15 workers take?

(A) 27 **(B)** 14
(C) 12 **(D)** 11

26. What is the compound interest on ₹10,000 at 10% per year for 2 years, compounded yearly?

(A) ₹2,100 **(B)** ₹3,100
(C) ₹12,100 **(D)** ₹2,000

27. An item marked ₹1,200 is sold at a 15% discount. What is the selling price?

(A) ₹180 **(B)** ₹1,020
(C) ₹1,380 **(D)** ₹1,185

28. $(x + 7)(x + 7)$ = ?

(A) $x^2 + 14x + 14$ **(B)** $x^2 + 14x + 49$
(C) $x^2 + 49x + 49$ **(D)** $x^2 + 49x + 14$

29. What is each exterior angle of a regular polygon with 8 sides?

(A) 55° **(B)** 135°
(C) 1080° **(D)** 45°

30. What is the value of 3^{-2}?

(A) 1/6 **(B)** −1/9
(C) 1/9 **(D)** −9

31. What is the volume of a cylinder with radius 7 cm and height 20 cm? (Take π = 22/7)

(A) 880 cubic cm **(B)** 3080 cubic cm
(C) 3234 cubic cm **(D)** 440 cubic cm

32. What is the sum of the interior angles of a polygon with 8 sides?

(A) 1440° **(B)** 540°
(C) 1260° **(D)** 1080°

33. Factorise: $x^2 - 36$

(A) $(x - 6)^2$ **(B)** $(x + 6)(x - 6)$
(C) $(x + 6)^2$ **(D)** $(x + 36)(x - 1)$

34. An item marked ₹800 is sold at a 20% discount. What is the selling price?

(A) ₹960 **(B)** ₹160
(C) ₹780 **(D)** ₹640

35. Using an identity, 97^2 = ?

(A) 10,409 **(B)** 9,509
(C) 9,400 **(D)** 9,409

36. What is the total surface area of a cuboid 12 cm × 6 cm × 8 cm?

(A) 442 sq cm **(B)** 216 sq cm
(C) 576 sq cm **(D)** 432 sq cm

37. What is the square root of 2,025?

(A) 49 **(B)** 45
(C) 46 **(D)** 42

38. Solve: $x/5 + 4 = 6$

(A) $x = 2$ **(B)** $x = 15$
(C) $x = 30$ **(D)** $x = 10$

39. A die is thrown once. What is the probability of getting a number less than 3?

(A) 1/3 **(B)** 1/4
(C) 2/3 **(D)** 1/6

40. What is the compound interest on ₹20,000 at 20% per year for 2 years, compounded yearly?

(A) ₹12,800 **(B)** ₹8,000
(C) ₹28,800 **(D)** ₹8,800

41. What is the sum of the interior angles of a polygon with 6 sides?

(A) 360° **(B)** 720°
(C) 900° **(D)** 1080°

42. $(x + 5)(x + 4)$ = ?

(A) $x^2 + 20x + 20$ **(B)** $x^2 + 9x + 9$
(C) $x^2 + 20x + 9$ **(D)** $x^2 + 9x + 20$

43. What is the square root of 3,136?

(A) 56 **(B)** 52
(C) 57 **(D)** 54

44. Using an identity, 98^2 = ?

(A) 9,704 **(B)** 10,604
(C) 9,595 **(D)** 9,604

45. What is the cube root of 2,197?

(A) 13 **(B)** 16
(C) 15 **(D)** 11

46. If 15 kg of rice costs ₹750, what do 25 kg cost?

(A) ₹1,250 **(B)** ₹1,125
(C) ₹1,300 **(D)** ₹1,875

47. What is the volume of a cylinder with radius 7 cm and height 10 cm? (Take π = 22/7)

(A) 1694 cubic cm **(B)** 1540 cubic cm
(C) 440 cubic cm **(D)** 220 cubic cm

48. What is each exterior angle of a regular polygon with 6 sides?

(A) 720° **(B)** 60°
(C) 70° **(D)** 120°

49. Solve: x/5 + 3 = 11

(A) x = 45 **(B)** x = 40
(C) x = 55 **(D)** x = 8

50. What is the compound interest on ₹10,000 at 20% per year for 2 years, compounded yearly?

(A) ₹14,400 **(B)** ₹4,000
(C) ₹4,400 **(D)** ₹6,400

Practice OMR sheet

Fill one circle for each question, using a dark pen. Practising this now saves time in the real exam.

1	○ A	○ B	○ C	○ D
2	○ A	○ B	○ C	○ D
3	○ A	○ B	○ C	○ D
4	○ A	○ B	○ C	○ D
5	○ A	○ B	○ C	○ D
6	○ A	○ B	○ C	○ D
7	○ A	○ B	○ C	○ D
8	○ A	○ B	○ C	○ D
9	○ A	○ B	○ C	○ D
10	○ A	○ B	○ C	○ D
11	○ A	○ B	○ C	○ D
12	○ A	○ B	○ C	○ D
13	○ A	○ B	○ C	○ D
14	○ A	○ B	○ C	○ D
15	○ A	○ B	○ C	○ D
16	○ A	○ B	○ C	○ D
17	○ A	○ B	○ C	○ D
18	○ A	○ B	○ C	○ D
19	○ A	○ B	○ C	○ D
20	○ A	○ B	○ C	○ D
21	○ A	○ B	○ C	○ D
22	○ A	○ B	○ C	○ D
23	○ A	○ B	○ C	○ D
24	○ A	○ B	○ C	○ D
25	○ A	○ B	○ C	○ D

26	○ A	○ B	○ C	○ D
27	○ A	○ B	○ C	○ D
28	○ A	○ B	○ C	○ D
29	○ A	○ B	○ C	○ D
30	○ A	○ B	○ C	○ D
31	○ A	○ B	○ C	○ D
32	○ A	○ B	○ C	○ D
33	○ A	○ B	○ C	○ D
34	○ A	○ B	○ C	○ D
35	○ A	○ B	○ C	○ D
36	○ A	○ B	○ C	○ D
37	○ A	○ B	○ C	○ D
38	○ A	○ B	○ C	○ D
39	○ A	○ B	○ C	○ D
40	○ A	○ B	○ C	○ D
41	○ A	○ B	○ C	○ D
42	○ A	○ B	○ C	○ D
43	○ A	○ B	○ C	○ D
44	○ A	○ B	○ C	○ D
45	○ A	○ B	○ C	○ D
46	○ A	○ B	○ C	○ D
47	○ A	○ B	○ C	○ D
48	○ A	○ B	○ C	○ D
49	○ A	○ B	○ C	○ D
50	○ A	○ B	○ C	○ D

Answer key

Check your answers. Your score = number of correct answers × 2 marks.

1	2	3	4	5	6	7	8	9	10
B	**C**	**D**	**A**	**B**	**C**	**A**	**C**	**C**	**D**
11	12	13	14	15	16	17	18	19	20
B	**C**	**D**	**C**	**B**	**D**	**D**	**B**	**A**	**D**
21	22	23	24	25	26	27	28	29	30
A	**B**	**D**	**B**	**C**	**A**	**B**	**B**	**D**	**C**
31	32	33	34	35	36	37	38	39	40
B	**D**	**B**	**D**	**D**	**D**	**B**	**D**	**A**	**D**
41	42	43	44	45	46	47	48	49	50
B	**D**	**A**	**D**	**A**	**A**	**B**	**B**	**B**	**C**

Want more practice? Registered students also get mock tests, and free weekend quizzes are open to everyone at mathsolympiad.net/wc.