Sample Paper · Class 7

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 7 Score _____ / 100

School _____

Questions

1. The two shorter sides of a right triangle are 9 cm and 12 cm. How long is the longest side?

(A) 15 cm **(B)** 21 cm
(C) 16 cm **(D)** 14 cm

2. What is the value of $3^3 \times 3^2$?

(A) 729 **(B)** 36
(C) 486 **(D)** 243

3. $-5/6 + 2/3 = ?$

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

4. Two angles of a triangle are 78° and 42°. What is the third angle?

(A) 70° **(B)** 60°
(C) 120° **(D)** 102°

5. An item bought for ₹250 is sold at a profit of 20%. What is the selling price?

(A) ₹310 **(B)** ₹270
(C) ₹200 **(D)** ₹300

6. $(-6) \times 7 \div (-3) = ?$

(A) 14 **(B)** −14
(C) 16 **(D)** −28

7. What is the area of a circle of radius 14 cm? (Take π = 22/7)

(A) 88 sq cm **(B)** 616 sq cm
(C) 1232 sq cm **(D)** 630 sq cm

8. If a = 5 and b = −5, what is $2a^2 - ab$?

(A) 125 **(B)** 75
(C) 25 **(D)** 35

9. 60% as a fraction in its simplest form is:

(A) 1/4 **(B)** 2/5
(C) 3/5 **(D)** 3/4

10. The two interior opposite angles of a triangle are 78° and 42°. What is the exterior angle?

(A) 130° **(B)** 36°
(C) 60° **(D)** 120°

11. Solve: 4x − 6 = 54

(A) x = 15 **(B)** x = 30
(C) x = 16 **(D)** x = 14

12. Simplify: 8x + 5y − 4x + 2y

(A) 4x + 3y **(B)** 12x + 7y
(C) 4x + 7y **(D)** 4x + 8y

13. What is the circumference of a circle of radius 14 cm? (Take π = 22/7)

(A) 88 cm **(B)** 44 cm
(C) 616 cm **(D)** 95 cm

14. What is the mode of 2, 6, 8, 11, 9, 9, 4, 9?

(A) 4 **(B)** 6
(C) 2 **(D)** 9

15. What is the simple interest on ₹6,000 at 12% per year for 2 years?

(A) ₹2,040 **(B)** ₹7,440
(C) ₹720 **(D)** ₹1,440

16. What is the circumference of a circle of radius 7 cm? (Take π = 22/7)

(A) 51 cm **(B)** 154 cm
(C) 44 cm **(D)** 22 cm

17. Simplify: 9x + 2y − 2x + 3y

(A) 11x + 5y **(B)** 7x − y
(C) 7x + 6y **(D)** 7x + 5y

18. −5/6 + 1/3 = ?

(A) −4/9 **(B)** −7/6
(C) −1/2 **(D)** 7/6

19. Two angles of a triangle are 74° and 37°. What is the third angle?

(A) 69° **(B)** 111°
(C) 106° **(D)** 79°

20. What is the mode of 11, 7, 3, 5, 7, 7, 4, 6?

(A) 4 **(B)** 7
(C) 5 **(D)** 3

21. If $a = 2$ and $b = -4$, what is $2a^2 - ab$?

(A) 12 **(B)** 16
(C) 24 **(D)** 0

22. What is the area of a circle of radius 7 cm? (Take $\pi = 22/7$)

(A) 44 sq cm **(B)** 154 sq cm
(C) 308 sq cm **(D)** 161 sq cm

23. The two interior opposite angles of a triangle are 74° and 37°. What is the exterior angle?

(A) 37° **(B)** 121°
(C) 111° **(D)** 69°

24. What is the value of $3^4 \times 3^1$?

(A) 84 **(B)** 81
(C) 486 **(D)** 243

25. 75% as a fraction in its simplest form is:

(A) 1/4 **(B)** 3/4
(C) 3/5 **(D)** 2/5

26. An item bought for ₹250 is sold at a profit of 10%. What is the selling price?

(A) ₹275 **(B)** ₹285
(C) ₹260 **(D)** ₹225

27. What is the simple interest on ₹12,000 at 12% per year for 2 years?

(A) ₹2,880 **(B)** ₹4,080
(C) ₹1,440 **(D)** ₹14,880

28. Solve: $4x - 8 = 24$

(A) $x = 8$ **(B)** $x = 16$
(C) $x = 7$ **(D)** $x = 9$

29. $(-6) \times 8 \div (-2) = ?$

(A) 26 **(B)** 24
(C) −24 **(D)** −48

30. Two angles of a triangle are 61° and 52°. What is the third angle?

(A) 67° **(B)** 77°
(C) 113° **(D)** 119°

31. What is the mode of 4, 8, 2, 10, 5, 3, 5, 5?

(A) 5 **(B)** 4
(C) 2 **(D)** 3

32. What is the circumference of a circle of radius 21 cm? (Take π = 22/7)

(A) 132 cm **(B)** 66 cm
(C) 1386 cm **(D)** 139 cm

33. What is the value of $3^3 \times 3^3$?

(A) 54 **(B)** 19683
(C) 729 **(D)** 1458

34. What is the area of a circle of radius 21 cm? (Take π = 22/7)

(A) 2772 sq cm **(B)** 132 sq cm
(C) 1386 sq cm **(D)** 1407 sq cm

35. Simplify: $8x + 2y - 5x + 5y$

(A) $3x + 7y$ **(B)** $3x - 3y$
(C) $3x + 8y$ **(D)** $13x + 7y$

36. Solve: $3x - 7 = 11$

(A) $x = 9$ **(B)** $x = 6$
(C) $x = 5$ **(D)** $x = 7$

37. The two interior opposite angles of a triangle are 61° and 52°. What is the exterior angle?

(A) 123° **(B)** 113°
(C) 9° **(D)** 67°

38. An item bought for ₹500 is sold at a profit of 10%. What is the selling price?

(A) ₹550 **(B)** ₹450
(C) ₹510 **(D)** ₹560

39. What is the simple interest on ₹15,000 at 8% per year for 3 years?

(A) ₹1,200 **(B)** ₹18,600
(C) ₹3,600 **(D)** ₹5,100

40. $(-6) \times 9 \div (-3) = ?$

(A) −36 **(B)** 18
(C) −18 **(D)** 20

41. The two shorter sides of a right triangle are 8 cm and 15 cm. How long is the longest side?

(A) 18 cm **(B)** 17 cm
(C) 23 cm **(D)** 16 cm

42. If $a = 3$ and $b = -3$, what is $2a^2 - ab$?

(A) 27 **(B)** 15
(C) 9 **(D)** 45

43. What is the simple interest on ₹15,000 at 5% per year for 3 years?

(A) ₹2,250 **(B)** ₹750
(C) ₹17,250 **(D)** ₹3,750

44. 20% as a fraction in its simplest form is:

(A) 2/5 **(B)** 1/5
(C) 3/4 **(D)** 1/4

45. $(-4) \times 6 \div (-2) = ?$

(A) -12 **(B)** 12
(C) -24 **(D)** 14

46. Simplify: $9x + 5y - 4x + 4y$

(A) $5x + y$ **(B)** $5x + 10y$
(C) $13x + 9y$ **(D)** $5x + 9y$

47. What is the mode of 11, 10, 6, 8, 9, 2, 6, 6?

(A) 9 **(B)** 8
(C) 2 **(D)** 6

48. Two angles of a triangle are 41° and 64°. What is the third angle?

(A) 139° **(B)** 105°
(C) 85° **(D)** 75°

49. $-7/8 + 1/5 = ?$

(A) $-6/13$ **(B)** 43/40
(C) $-27/40$ **(D)** $-43/40$

50. The two interior opposite angles of a triangle are 41° and 64°. What is the exterior angle?

(A) 115° **(B)** 23°
(C) 105° **(D)** 75°

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

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