

SCO INTERNATIONAL MATHS OLYMPIAD

CLASS 4 QUESTION PAPER

Reviewed Set H | 2024-25 | Answer Key and Explanations

Designed for Class 4 learners and aligned with SCO's guided preparation, practice, reporting, and future-ready academic growth.

- age-fit mathematics practice for primary-level learners globally
- question blocks with options, correct answers, and clear explanations
- number sense, Roman numerals, geometry, measurement, data handling, decimals, and reasoning
- student, teacher, and school-ready format for web publishing and guided revision

Maths	Number Sense	Roman Numerals	Geometry	Data Handling
Decimals	Reasoning	Word Problems	Area & Perimeter	Achievers

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SCO International Maths Olympiad - Class 4 Set H

Total Questions: 35 | Time: 1 hour | Format: Multiple Choice Questions | Calculator: Not allowed

Instructions for students: Read every question carefully, select only one option, and use the explanation after each question for learning and revision. Every case-study passage is placed inside the relevant question block.

Paper Structure

Segment	Questions	Learning Focus
General Mathematics	1-20	numbers, Roman numerals, factors, multiples, geometry, area, perimeter, decimals
Reason and Assertion	21-25	truth-checking, formula understanding and mathematical reasoning
Everyday Maths and Case Study	26-30	garden, party, grocery, playground and graph-based applications
Achievers Section	31-35	higher-order reasoning and multi-step problem solving

Section 1 - General Mathematics

Number sense, Roman numerals, factors, multiples, geometry, area, perimeter, decimals and core computation.

Question 1

What is the smallest multiple of 9 that is greater than 50?

- A. 57
- B. 54
- C. 63
- D. 72

Answer: B

Explanation: Multiples of 9 are 9, 18, 27, 36, 45, 54, 63 and so on. The first multiple after 50 is 54.

Question 2

What is the Roman numeral for 48?

- A. XLVIII
- B. LXXX
- C. XLIV
- D. LXXXV

Answer: A

Explanation: $48 = 40 + 8$. In Roman numerals, 40 is XL and 8 is VIII, so 48 is XLVIII.

Question 3

Which of the following is the greatest common factor of both 18 and 24?

- A. 2
- B. 3
- C. 6
- D. 9

Answer: C

Explanation: Factors of 18 include 1, 2, 3, 6, 9 and 18. Factors of 24 include 1, 2, 3, 4, 6, 8, 12 and 24. The greatest common factor is 6.

Question 4

A triangle has sides of lengths 5 cm, 12 cm and 13 cm. By angle, what type of triangle is this?

- A. Scalene triangle
- B. Isosceles triangle
- C. Equilateral triangle
- D. Right-angled triangle

Answer: D

Explanation: The side lengths 5, 12 and 13 form a right-angled triangle because $5^2 + 12^2 = 13^2$. Although all three sides are unequal, the angle classification is right-angled.

Question 5

What is the area of a rectangle with length 8 cm and width 5 cm?

- A. 13 cm^2
- B. 20 cm^2
- C. 40 cm^2
- D. 30 cm^2

Answer: C

Explanation: Area of a rectangle = length x width = $8 \times 5 = 40 \text{ cm}^2$.

Question 6

The perimeter of a square is 36 cm. What is the length of each side?

- A. 9 cm
- B. 12 cm
- C. 8 cm
- D. 6 cm

Answer: A

Explanation: A square has four equal sides. Side length = perimeter / 4 = $36 / 4 = 9 \text{ cm}$.

Question 7

If the radius of a circle is 7 cm, what is its area? Use $\pi = 22/7$.

- A. 49 cm^2
- B. 77 cm^2
- C. 154 cm^2
- D. 100 cm^2

Answer: C

Explanation: Area of a circle = $\pi \times r \times r = 22/7 \times 7 \times 7 = 154 \text{ cm}^2$.

Question 8

A bar graph shows the number of fruits in 4 baskets. If apples are represented by 4 bars, and each bar is worth 3 apples, how many apples are there in total?

- A. 12 apples
- B. 10 apples
- C. 15 apples
- D. 14 apples

Answer: A

Explanation: Each bar represents 3 apples. Therefore, 4 bars represent $4 \times 3 = 12$ apples.

Question 9

What is the sum of 3.75 and 5.6?

- A. 9.25
- B. 8.25
- C. 9.35

D. 8.35

Answer: C

Explanation: Write 5.6 as 5.60. Then $3.75 + 5.60 = 9.35$.

Question 10

What is the difference between 14.85 and 9.7?

- A. 5.15
- B. 4.95
- C. 6.15
- D. 5.25

Answer: A

Explanation: Write 9.7 as 9.70. Then $14.85 - 9.70 = 5.15$.

Question 11

Which of the following even numbers is divisible by both 3 and 5?

- A. 20
- B. 30
- C. 40
- D. 45

Answer: B

Explanation: A number divisible by both 3 and 5 is divisible by 15. Both 30 and 45 are divisible by 15, but the question asks for an even number. Therefore, 30 is correct.

Question 12

What is the LCM of 6 and 8?

- A. 12
- B. 24
- C. 48
- D. 36

Answer: B

Explanation: Multiples of 6 are 6, 12, 18, 24. Multiples of 8 are 8, 16, 24. The least common multiple is 24.

Question 13

What is the perimeter of a triangle with sides 7 cm, 10 cm and 12 cm?

- A. 29 cm
- B. 30 cm
- C. 32 cm
- D. 35 cm

Answer: A

Explanation: Perimeter is the total distance around a shape. $7 + 10 + 12 = 29$ cm.

Question 14

What is the Roman numeral for 78?

- A. LXXVIII
- B. LXXXVIII
- C. LXXIV
- D. LVIII

Answer: A

Explanation: $78 = 50 + 20 + 8$. In Roman numerals, 50 is L, 20 is XX and 8 is VIII. Therefore, 78 is LXXVIII.

Question 15

What is the value of $12 \times 5 / 4$?

- A. 15
- B. 18
- C. 12
- D. 16

Answer: A

Explanation: Calculate from left to right for multiplication and division: $12 \times 5 = 60$, and $60 / 4 = 15$.

Question 16

Which of the following is the smallest multiple of both 6 and 9?

- A. 18
- B. 30
- C. 24
- D. 54

Answer: A

Explanation: Multiples of 6 are 6, 12, 18, 24, 30. Multiples of 9 are 9, 18, 27, 36. The smallest common multiple is 18.

Question 17

What is the area of a square with a side length of 6 cm?

- A. 36 cm^2
- B. 12 cm^2
- C. 18 cm^2
- D. 30 cm^2

Answer: A

Explanation: Area of a square = side \times side = $6 \times 6 = 36 \text{ cm}^2$.

Question 18

What is the number of factors of 36?

- A. 6
- B. 9
- C. 12
- D. 18

Answer: B

Explanation: The factors of 36 are 1, 2, 3, 4, 6, 9, 12, 18 and 36. There are 9 factors.

Question 19

What is the perimeter of a rectangle with length 10 cm and width 5 cm?

- A. 30 cm
- B. 25 cm
- C. 35 cm
- D. 20 cm

Answer: A

Explanation: Perimeter of a rectangle = $2 \times (\text{length} + \text{width}) = 2 \times (10 + 5) = 30$ cm.

Question 20

If the radius of a circle is doubled, what happens to the area of the circle?

- A. It becomes four times the original area
- B. It becomes twice the original area
- C. It becomes three times the original area
- D. It remains the same

Answer: A

Explanation: Area depends on radius \times radius. If radius becomes 2 times, the area becomes $2 \times 2 = 4$ times the original area.

Section 2 - Reason and Assertion

Mathematical statements requiring truth-checking and explanation-based reasoning.

Question 21

Assertion (A): 56 is a multiple of both 7 and 8.

Reason (R): $56 / 7 = 8$ and $56 / 8 = 7$.

- A. Both Assertion and Reason are correct, and Reason explains Assertion
- B. Assertion is correct, but Reason is incorrect
- C. Assertion is incorrect, but Reason is correct
- D. Both Assertion and Reason are incorrect

Answer: A

Explanation: 56 can be divided exactly by 7 and also by 8. The reason shows both divisions and correctly explains the assertion.

Question 22

Assertion (A): The perimeter of a square is the sum of all its sides.

Reason (R): The perimeter of a square is calculated by multiplying the side length by 4.

- A. Both Assertion and Reason are correct, and Reason explains Assertion
- B. Assertion is correct, but Reason is incorrect
- C. Assertion is incorrect, but Reason is correct
- D. Both Assertion and Reason are incorrect

Answer: A

Explanation: A square has four equal sides. Adding all four sides is the same as multiplying one side by 4.

Question 23

Assertion (A): The Roman numeral for 58 is LVIII.

Reason (R): LVIII is formed by combining 50 (L), 5 (V), and 3 (III).

- A. Both Assertion and Reason are correct, and Reason explains Assertion
- B. Assertion is correct, but Reason is incorrect
- C. Assertion is incorrect, but Reason is correct
- D. Both Assertion and Reason are incorrect

Answer: A

Explanation: $LVIII = L + V + III = 50 + 5 + 3 = 58$. The reason correctly explains the assertion.

Question 24

Assertion (A): The area of a rectangle is always greater than its perimeter.

Reason (R): The perimeter of a rectangle is calculated by adding the length and width only once.

- A. Both Assertion and Reason are correct
- B. Assertion is correct, but Reason is incorrect
- C. Assertion is incorrect, but Reason is correct
- D. Both Assertion and Reason are incorrect

Answer: D

Explanation: The area of a rectangle is not always greater than its perimeter. Also, the correct perimeter formula is $2 \times (\text{length} + \text{width})$, not length + width only once.

Question 25

Assertion (A): 45 is divisible by 9 but not divisible by 3.

Reason (R): $45 / 9 = 5$, and $45 / 3 = 15$, which shows that it is divisible by 3.

- A. Both Assertion and Reason are correct
- B. Assertion is correct, but Reason is incorrect
- C. Assertion is incorrect, but Reason is correct
- D. Both Assertion and Reason are incorrect

Answer: C

Explanation: 45 is divisible by both 9 and 3. Therefore the assertion is incorrect, but the reason correctly proves divisibility by 3.

Section 3 - Everyday Maths and Case Study

Real-life word problems involving gardens, parties, groceries, playgrounds and data.

Question 26

Case Study: Planning a Garden

Alex wants to plant flowers in a rectangular garden. The length of the garden is 12 meters and the width is 5 meters.

Alex is planning to plant flowers along the entire boundary of the garden.

What will be the total length of the flower bed around the garden?

- A. 34 meters
- B. 40 meters
- C. 44 meters
- D. 50 meters

Answer: A

Explanation: The flower bed goes around the perimeter. Perimeter = $2 \times (12 + 5) = 2 \times 17 = 34$ meters.

Question 27

Case Study: Birthday Party Planning

Sofia is organizing a birthday party. She has 35 chairs and wants to arrange them in rows of 5.

How many rows will Sofia need to arrange the chairs?

- A. 5
- B. 6
- C. 7
- D. 8

Answer: C

Explanation: Number of rows = total chairs / chairs in each row = $35 / 5 = 7$ rows.

Question 28

Case Study: Shopping for Groceries

Liam bought 3 packets of pasta. Each packet weighs 0.75 kg. He also bought 4 packets of rice, and each packet weighs 1.5 kg.

What is the total weight of the groceries that Liam bought?

- A. 10.5 kg
- B. 9 kg
- C. 8.25 kg
- D. 12 kg

Answer: C

Explanation: Pasta weight = $3 \times 0.75 = 2.25$ kg. Rice weight = $4 \times 1.5 = 6$ kg. Total = $2.25 + 6 = 8.25$ kg.

Question 29

Case Study: Calculating the Area of a Playground

A rectangular playground has length 20 meters and width 8 meters. A new play area is built inside it with length 15 meters and width 5 meters.

What is the area of the remaining space in the playground?

- A. 50 square meters
- B. 85 square meters
- C. 120 square meters
- D. 140 square meters

Answer: B

Explanation: Total playground area = $20 \times 8 = 160$ square meters. New play area = $15 \times 5 = 75$ square meters. Remaining area = $160 - 75 = 85$ square meters.

Question 30

Case Study: Reading a Bar Graph

A bar graph shows the number of books read by a group of students over a month: Emma read 10 books, Jack read 7 books, Mia read 12 books, and Noah read 5 books.

How many books in total were read by all the students?

- A. 35 books
- B. 34 books
- C. 30 books
- D. 25 books

Answer: B

Explanation: Total books = $10 + 7 + 12 + 5 = 34$ books.

Section 4 - Achievers Section

Higher-order reasoning problems for confident Class 4 learners.

Question 31

The numbers 36, 72 and 108 are considered. What is the smallest number that is divisible by all three numbers?

- A. 216
- B. 72
- C. 108
- D. 360

Answer: A

Explanation: The least common multiple of 36, 72 and 108 is 216. It is the smallest number that all three can divide exactly.

Question 32

What is the sum of the Roman numerals XCVII and LIV?

- A. CXLII
- B. CXLIII
- C. CLI
- D. CXL

Answer: C

Explanation: XCVII = 97 and LIV = 54. Their sum is 151. In Roman numerals, 151 is CLI.

Question 33

A triangle has a base of 8 cm and a height of 6 cm. What is the area of the triangle?

- A. 24 cm^2
- B. 25 cm^2
- C. 26 cm^2
- D. 28 cm^2

Answer: A

Explanation: Area of a triangle = $\frac{1}{2} \times \text{base} \times \text{height} = \frac{1}{2} \times 8 \times 6 = 24 \text{ cm}^2$. This corrected version keeps the Achievers question age-appropriate and has one exact answer.

Question 34

In a bar graph, the heights of the bars for January, February and March are 6, 8 and 10. If the number of books read in April is represented by a bar twice as tall as the bar for March, what will be the height of the April bar?

- A. 10
- B. 12
- C. 20
- D. 18

Answer: C

Explanation: The March bar has height 10. Twice as tall means $2 \times 10 = 20$.

Question 35

A bakery sold 15.75 kg of flour in the morning and 23.50 kg in the afternoon. If the total weight of flour delivered to the bakery was 50 kg, how much flour is left?

- A. 10.75 kg
- B. 11.75 kg
- C. 12.75 kg
- D. 13.75 kg

Answer: A

Explanation: Flour sold = $15.75 + 23.50 = 39.25$ kg. Flour left = $50 - 39.25 = 10.75$ kg.

Consolidated Answer Key

This table gives the quick answer reference for all 35 questions. Detailed explanations are included inside each question block above.

Question	Answer	Section	Skill Focus
1	B	General Mathematics	What is the smallest multiple of 9 that is greater than...
2	A	General Mathematics	What is the Roman numeral for 48?
3	C	General Mathematics	Which of the following is the greatest common factor of...
4	D	General Mathematics	A triangle has sides of lengths 5 cm, 12 cm and 13 cm. ...
5	C	General Mathematics	What is the area of a rectangle with length 8 cm and wi...
6	A	General Mathematics	The perimeter of a square is 36 cm. What is the length ...
7	C	General Mathematics	If the radius of a circle is 7 cm, what is its area? Us...
8	A	General Mathematics	A bar graph shows the number of fruits in 4 baskets. If...
9	C	General Mathematics	What is the sum of 3.75 and 5.6?
10	A	General Mathematics	What is the difference between 14.85 and 9.7?
11	B	General Mathematics	Which of the following even numbers is divisible by bot...
12	B	General Mathematics	What is the LCM of 6 and 8?
13	A	General Mathematics	What is the perimeter of a triangle with sides 7 cm, 10...
14	A	General Mathematics	What is the Roman numeral for 78?
15	A	General Mathematics	What is the value of $12 \times 5 / 4$?
16	A	General Mathematics	Which of the following is the smallest multiple of both...
17	A	General Mathematics	What is the area of a square with a side length of 6 cm...
18	B	General Mathematics	What is the number of factors of 36?
19	A	General Mathematics	What is the perimeter of a rectangle with length 10 cm ...
20	A	General Mathematics	If the radius of a circle is doubled, what happens to t...
21	A	Reason and Assertion	Assertion (A): 56 is a multiple of both 7 and 8. Reason...

22	A	Reason and Assertion	Assertion (A): The perimeter of a square is the sum of ...
23	A	Reason and Assertion	Assertion (A): The Roman numeral for 58 is LVIII. Reaso...
24	D	Reason and Assertion	Assertion (A): The area of a rectangle is always greate...
25	C	Reason and Assertion	Assertion (A): 45 is divisible by 9 but not divisible b...
26	A	Everyday Maths and Case Study	What will be the total length of the flower bed around ...
27	C	Everyday Maths and Case Study	How many rows will Sofia need to arrange the chairs?
28	C	Everyday Maths and Case Study	What is the total weight of the groceries that Liam bou...
29	B	Everyday Maths and Case Study	What is the area of the remaining space in the playgrou...
30	B	Everyday Maths and Case Study	How many books in total were read by all the students?
31	A	Achievers Section	The numbers 36, 72 and 108 are considered. What is the ...
32	C	Achievers Section	What is the sum of the Roman numerals XCVII and LIV?
33	A	Achievers Section	A triangle has a base of 8 cm and a height of 6 cm. Wha...
34	C	Achievers Section	In a bar graph, the heights of the bars for January, Fe...
35	A	Achievers Section	A bakery sold 15.75 kg of flour in the morning and 23.5...

Learning Use for Students, Teachers and Schools

Students: Use the question blocks to practise one concept at a time. Read the explanation after choosing an answer to strengthen reasoning and accuracy.

Teachers: Use the segment structure to assign targeted revision in number sense, Roman numerals, geometry, measurement, decimals, data handling and mathematical reasoning.

Schools: Use this paper as a reviewed, publication-ready resource for olympiad preparation, classroom enrichment and parent-facing academic guidance.