

Class 4 · Mathematics Olympiad

Total questions 35	Total marks 40	Time 60 minutes	Negative marking None
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Each question has four options, of which only one is correct. Mark your answer on the answer sheet. The Achievers Section carries higher marks per question. The answer key with full solutions is at the end of this paper.

This is original practice material written to the Level 1 pattern. It is not a past paper and is not affiliated with SOF or any official olympiad body.

Logical Reasoning

10 questions · 1 mark each · 10 marks

Q1. In a certain code TIN is written as VKP. How is PEN written in that code?

- (A) RGP (B) PGR (C) SHQ (D) NCL

Q2. Five friends A, B, C, D and E sit in a row of five seats. A sits at the extreme left end, D sits at the extreme right end, C sits exactly in the middle and B sits between A and C. Who sits in the fourth seat from the left?

- (A) E (B) C (C) D (D) B

Q3. Find the next number in the pattern: 2, 7, 17, 37, ____

- (A) 80 (B) 77 (C) 75 (D) 74

Q4. If today is Saturday, what day is the day after today?

- (A) Tuesday (B) Wednesday (C) Sunday (D) Monday

Q5. Meera walks 9 m towards north, turns right and walks 5 m, then turns right again and walks 9 m. How far is Meera from the starting point, and in which direction?

- (A) 5 m, East (B) 9 m, East (C) 5 m, West (D) 14 m, North

Q6. Which word would come FIRST in a dictionary?

- (A) mother (B) maple (C) mango (D) metal

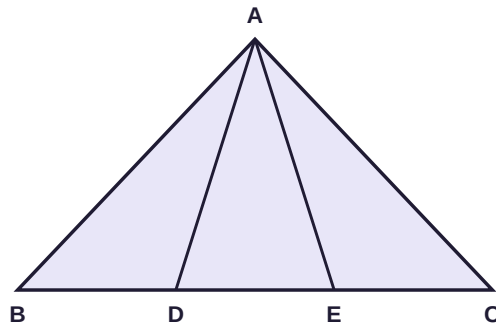
Q7. If DOG is written as 4 - 15 - 7 using the positions of the letters in the alphabet, how is CAT written?

- (A) 4 - 2 - 21 (B) 24 - 26 - 7 (C) 20 - 1 - 3 (D) 3 - 1 - 20

Q8. 7 : 49 :: 9 : ____

- (A) 100 (B) 18 (C) 81 (D) 64

Q9. How many triangles are there in the given figure?



- (A) 5 (B) 7 (C) 8 (D) 6

Q10. Which of these numbers is the smallest?

- (A) 1074 (B) 2419 (C) 277 (D) 2247

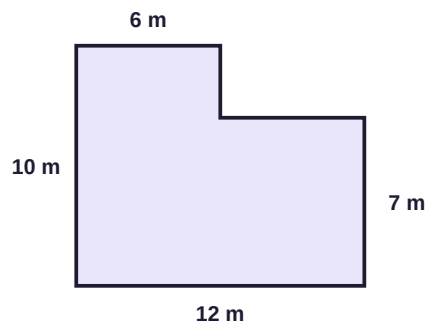
Mathematical Reasoning

10 questions · 1 mark each · 10 marks

Q11. How many sides does a square have?

- (A) 4 (B) 6 (C) 3 (D) 5

Q12. The figure shows a plot of land. What is its area?



- (A) 96 sq m (B) 102 sq m (C) 120 sq m (D) 105 sq m

Q13. $572 \div 4 = ?$

- (A) 133 (B) 143 (C) 144 (D) 153

Q14. $2/6 + 11/12 = ?$

- (A) $1 \frac{1}{3}$ (B) $1 \frac{3}{4}$ (C) $1 \frac{1}{4}$ (D) $1 \frac{1}{12}$

Q15. What is the smallest number that can be divided exactly by both 12 and 15?

- (A) 180 (B) 15 (C) 30 (D) 60

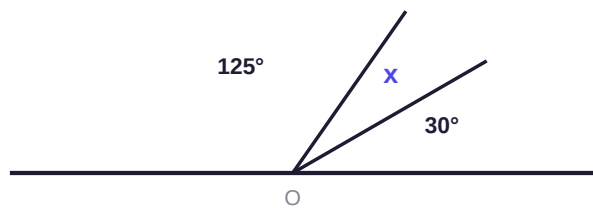
Q16. The perimeter of a square is 72 cm. What is its area?

- (A) 361 sq cm (B) 342 sq cm (C) 72 sq cm (D) 324 sq cm

Q17. $94,654 - 48,344 = ?$

- (A) 46,410 (B) 46,300 (C) 47,310 (D) 46,310

Q18. In the given figure, find the value of x .



- (A) 25° (B) 35° (C) 55° (D) 15°

Q19. What is the place value of 1 in the number 9,31,326?

- (A) 1,000 (B) 10,000 (C) 1 (D) 100

Q20. $4 \text{ L } 650 \text{ mL} \times 5 = ?$

- (A) 24 L 250 mL (B) 23 L 150 mL (C) 23 L 350 mL (D) 23 L 250 mL

Everyday Mathematics

10 questions · 1 mark each · 10 marks

Q21. An auto charges ₹ 25 for the first kilometre and ₹ 12 for every kilometre after that. What is the fare for a journey of 9 km?

- (A) ₹ 121 (B) ₹ 109 (C) ₹ 133 (D) ₹ 122

Q22. A water tank holds 400 litres. If $\frac{3}{4}$ of the water is used, how much water is left?

- (A) 125 L (B) 100 L (C) 75 L (D) 300 L

Q23. A pencil costs ₹ 67 and an eraser costs ₹ 85. What is the total cost?

- (A) ₹ 157 (B) ₹ 18 (C) ₹ 147 (D) ₹ 152

Q24. It is 1 o'clock now. What time will it be 2 hour(s) later?

- (A) 5 o'clock (B) 3 o'clock (C) 1 o'clock (D) 4 o'clock

Q25. A shopkeeper sells 21 kg of rice at ₹ 58 per kg. How much money does he receive?

- (A) ₹ 1,118 (B) ₹ 1,318 (C) ₹ 1,239 (D) ₹ 1,218

Q26. Ayesha had 57 chocolates and gave away 40. How many chocolates are left?

- (A) 57 (B) 15 (C) 19 (D) 17

Q27. In a class of 56 students, $\frac{2}{8}$ are girls. How many boys are there?

- (A) 37 (B) 14 (C) 47 (D) 42

Q28. A rope 9 m long is cut into pieces each 60 cm long. How many complete pieces are obtained?

- (A) 17 (B) 13 (C) 20 (D) 15

Q29. A train leaves at 5:25 a.m. and reaches its destination at 10:23 a.m. on the same day. How long is the journey?

- (A) 3 h 58 min (B) 4 h 58 min (C) 4 h 48 min (D) 5 h 58 min

Q30. One dozen pens cost ₹ 336. What is the cost of 9 pens?

- (A) ₹ 252 (B) ₹ 280 (C) ₹ 224 (D) ₹ 308

Q31. 8 taps together fill a tank in 60 minutes. How long will 10 taps of the same kind take to fill it?

- (A) 48 minutes (B) 51 minutes (C) 45 minutes (D) 60 minutes

Q32. Find the next number: 2, 4, 8, 14, 22, ____

- (A) 34 (B) 32 (C) 30 (D) 33

Q33. A gardener waters a plant but keeps it in a completely dark cupboard. The plant slowly turns yellow and dies. Why?

- (A) The cupboard has too much oxygen (B) Without light it cannot make food by photosynthesis
(C) Plants need soil, not water (D) Water is harmful to plants in the dark

Q34. There are 5 boxes with 4 oranges in each box. If 11 oranges are eaten, how many are left?

- (A) 20 (B) 12 (C) 6 (D) 9

Q35. Using each of the digits 7, 0, 6, 5 exactly once, what is the smallest 4-digit number that can be formed?

- (A) 7650 (B) 0567 (C) 5076 (D) 5067

Answer Key

1	2	3	4	5	6	7	8	9	10
A	A	B	C	A	C	D	C	D	C
11	12	13	14	15	16	17	18	19	20
A	B	B	C	D	D	D	A	A	D
21	22	23	24	25	26	27	28	29	30
A	B	D	B	D	D	D	D	B	A
31	32	33	34	35					
A	B	B	D	D					

Solutions

Q1. (A) Each letter moves 2 place(s) forward in the alphabet, so PEN becomes RGP.

Q2. (A) Seat 1 = A, seat 3 = C, seat 5 = D. B must be between A and C, so B takes seat 2, and the only friend left for seat 4 is E.

Q3. (B) Each number is doubled and 3 is added: $37 \times 2 + 3 = 77$.

Q4. (C) Counting 1 day(s) on from Saturday gives Sunday.

Q5. (A) The two 9 m walks (north, then south) cancel out, leaving only the 5 m walked towards the east. So the answer is 5 m, East.

Q6. (C) In alphabetical order the words run mango, maple, metal, mother, so mango comes first.

Q7. (D) C is letter 3 and A is letter 1 and T is letter 20, so $CAT = 3 - 1 - 20$.

Q8. (C) The second number is the first multiplied by itself: $7 \times 7 = 49$, so $9 \times 9 = 81$.

Q9. (D) Every triangle has apex A and two of the 4 base points as its other corners. Choosing 2 from 4 gives 6 triangles.

- Q10. (C) Comparing 277, 1074, 2247, 2419, the smallest is 277.
- Q11. (A) A square has 4 sides.
- Q12. (B) The missing corner is $(12 - 6) = 6$ m wide and $(10 - 7) = 3$ m tall. Take the full rectangle $12 \text{ m} \times 10 \text{ m} = 120$ sq m and subtract that corner, $6 \text{ m} \times 3 \text{ m} = 18$ sq m. $120 - 18 = 102$ sq m.
- Q13. (B) $4 \times 143 = 572$, so the quotient is 143.
- Q14. (C) Make the denominators the same (12): $2/6 = 4/12$ and $11/12 = 11/12$. Adding gives $15/12 = 1 \frac{1}{4}$.
- Q15. (D) Listing multiples of 12 and of 15, the first number that appears in both lists is 60.
- Q16. (D) Side = $72 / 4 = 18$ cm, so area = $18 \times 18 = 324$ sq cm.
- Q17. (D) $94,654 - 48,344 = 46,310$.
- Q18. (A) The three angles lie on a straight line, so they add to 180° . $x = 180^\circ - 125^\circ - 30^\circ = 25^\circ$.
- Q19. (A) The digit 1 stands in the 1,000 place, so its place value is 1,000.
- Q20. (D) $4 \text{ L } 650 \text{ mL} = 4,650 \text{ mL}$. $4,650 \times 5 = 23,250 \text{ mL} = 23 \text{ L } 250 \text{ mL}$.
- Q21. (A) After the first kilometre there are 8 more: $25 + 8 \times 12 = ₹ 121$.
- Q22. (B) $3/4$ of 400 = 300 L is used, so $400 - 300 = 100$ L is left.
- Q23. (D) $67 + 85 = ₹ 152$.
- Q24. (B) $1 + 2 = 3$, so the time will be 3 o'clock.
- Q25. (D) $21 \times 58 = ₹ 1,218$.
- Q26. (D) $57 - 40 = 17$.
- Q27. (D) $2/8$ of 56 = 14 girls, so the number of boys is $56 - 14 = 42$.
- Q28. (D) $9 \text{ m} = 900 \text{ cm}$ and $900 / 60 = 15$ pieces.
- Q29. (B) From 5:25 a.m. to 10:23 a.m. is 4 h 58 min.
- Q30. (A) One pen costs $336 / 12 = ₹ 28$, so 9 pens cost $9 \times 28 = ₹ 252$.
- Q31. (A) One tap alone would take $8 \times 60 = 480$ minutes. With 10 taps the time is $480 / 10 = 48$ minutes.
- Q32. (B) The gaps grow 2, 4, 6, 8, so the next gap is 10 and $22 + 10 = 32$.
- Q33. (B) Photosynthesis needs light. In the dark the plant cannot make food, so it dies even though it has water. The answer is Without light it cannot make food by photosynthesis.
- Q34. (D) $5 \times 4 = 20$ oranges in all, and $20 - 11 = 9$ are left.
- Q35. (D) A 4-digit number cannot begin with 0, so the smallest possible first digit is 5. The remaining digits are then placed in increasing order: 5067.

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