



# Primrose Schools

Affiliated to the CISCE Board for ICSE & ISC  
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An ISO 9001:2015 Certified Institution

## NATIONAL PRIMTALENT OLYMPIAD EXAMINATIONS MATHEMATICS

**CLASS**  
**7**

Name :

Section :

Roll no :

### Guidelines for the Candidates

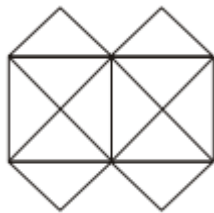
1	Please check your Name, Class and Section on the OMR sheet provided to you.
2	In case, OMR sheet with your name is missing, please fill in information about yourself in the blank sheet provided before start of exam.
3	All questions are compulsory. There is no negative marking. Use of calculator is not permitted.
4	There is only <b>ONE</b> correct answer. Choose only ONE option for an answer.
5	To mark your choice of answers by darkening the circles in OMR sheet, use <b><u>HB Pencil or Blue/Black ball point pen</u></b> only.
6	Rough work should be done in the blank space provided in the booklet.
7	Return the OMR sheet to the invigilator at the end of the exam
8	Please fill in your personal details in space on the top of this page before attempting the paper

## Section A - Logical Reasoning

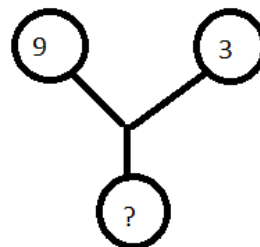
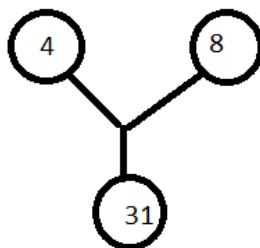
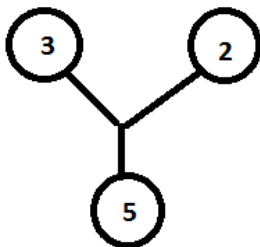
1. After travelling 45km, Mini found that  $\frac{1}{4}$  of her journey was completed. What is the total distance of her journey?

- a) 11.25 km
- b) 400 km
- c) 180 km
- d) 200 km

2. How many squares are there in this figure?



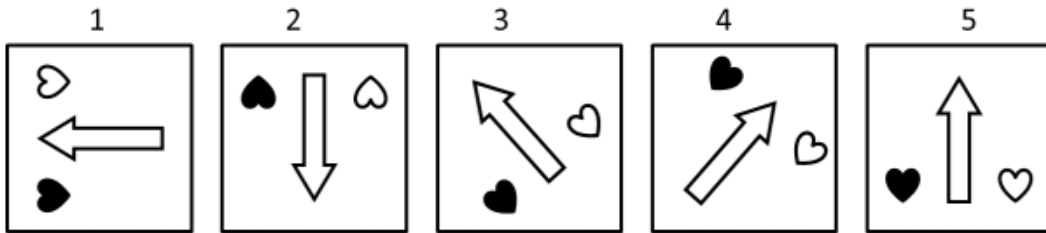
- a) 9
  - b) 7
  - c) 8
  - d) 2
3. Look at this series: G32, J29, \_\_, P23, S20, ... What number should fill the blank?
- a) W26
  - b) K17
  - c) M17
  - d) M26
4. which number will replace the question mark(?) ?



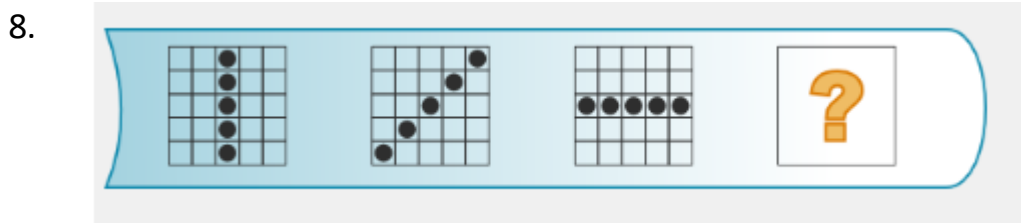
- a) 18
- b) 51
- c) 27
- d) 26

5. Look at this series: 5.2, 4.8, 4.4, 4, . . . What number should come next?  
 a) 3  
 b) 3.3  
 c) 3.5  
 d) 3.6

6. Choose the odd one out:



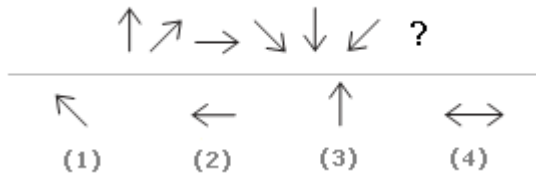
- a) 1  
 b) 2  
 c) 5  
 d) 3
7. Sofia started walking straight towards South. She walked a distance of 15 m and then took a left turn and walked a distance of 30 m. Then she took a right turn and walked a distance of 15 m again. Sofia is facing in which direction?  
 a) North - East   b) South   c) North   d) south-west



- a)
- b)
- c)
- d)

9. Find the odd one out:
- a)  $453 - 445$                       b)  $766 - 758$   
 c)  $215 - 207$                       d)  $146 - 129$

10. What comes next

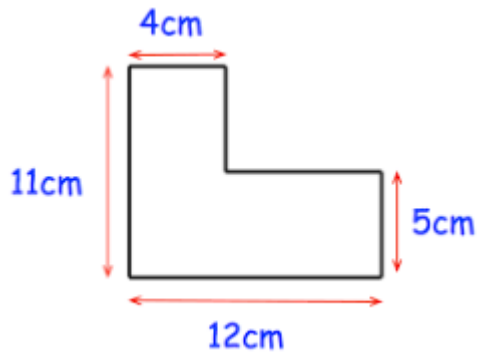


- a) 1                      b) 2                      c) 3                      d) 4

### Section A - Everyday Maths

11. What is the representation of 45 km towards the west?
- a) 45 km east                      b) - 45km  
 c) -45                                  d) None of the above

12. Find the area of the given shape.



- a) 25 cm    b) 84 cm    c) 68 cm    d) 42 cm

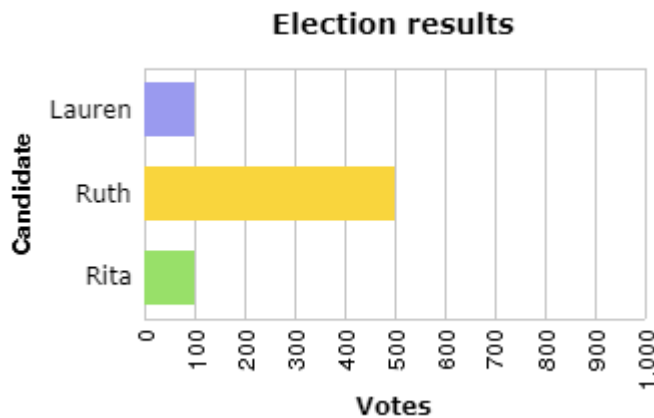
13. Mr.Kiran was trying to find a tablecloth for his rectangular dining table. The area of table top is  $40\text{m}^2$  and its width is 5m. Which of these will be the length of the table top?

- a) Length = 10 m  
 b) length = 20 m  
 c) length = 8 m  
 d) length = 12 m

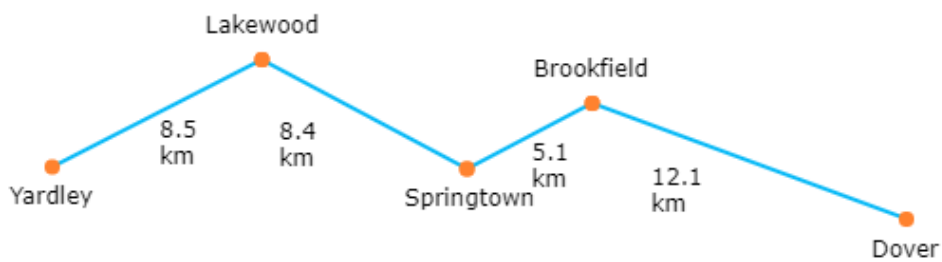
14. Look at the bar graph below. Find how many stop signs are more in Smith street than in Spring street?



- a) 5      b) 10      c) 15      d) 4
15. The following graph represents the number of votes got by the students in school election. What fraction of votes were for Ruth?



- a)  $\frac{5}{7}$       b)  $\frac{6}{7}$       c)  $\frac{1}{7}$       d)  $\frac{2}{15}$
16. Using the paths given, how far is it from Yardley to Dover?



- a) 25.8      b) 34.1      c) 18.5      d) none of the above

17. Kriya bought 16 litres of oil for the cost of Rs. 1288. What is the cost of 1 litre of oil bought by her?

- a) Rs. 80.5
- b) Rs. 78.25
- c) Rs. 76.5
- d) Rs. 81.6

18. Sharan reads  $\frac{3}{5}$  of a book. He finds that there are still 80 pages left to be read. Total number of pages in the book are :



- a) 100
- b) 200
- c) 300
- d) 400

19. If  $a = (-1)$  and  $b = (-4)$ , what is the value of  $2 + 3a - 2b$  ?

- a) -7
- b) 11
- c) 3
- d) 7

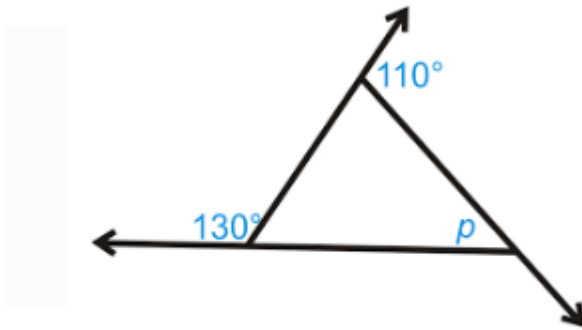
20. Ragul's father is thrice as old as Ragul. If father's age is 45 years then Ragul's age is

- a) 45
- b) 30
- c) 15
- d) 10

21. A rhombus is \_\_\_\_\_ a parallelogram

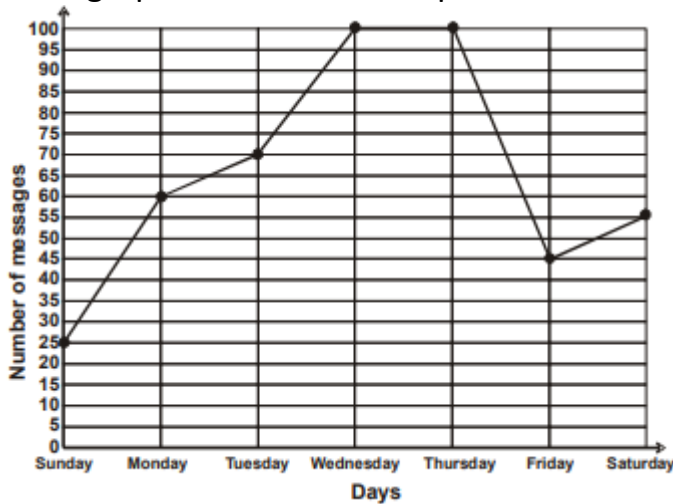
- a) Sometimes
- b) always
- c) never
- d) none of the above

22. Find the measure of the angle 'p'.



- a)  $110^\circ$
  - b)  $70^\circ$
  - c)  $130^\circ$
  - d)  $60^\circ$
23. What are the lines which lie on the same plane and do not intersect at any point called?
- a) Parallel lines
  - b) Perpendicular lines
  - c) Collinear lines
  - d) Intersecting lines
24. Which of the following alphabets has no line of symmetry?
- a) A
  - b) W
  - c) P
  - d) O
25. What is the smallest number that when divided separately by 20 and 48 gives the remainder of 7 every time?
- a) 231
  - b) 247
  - c) 220
  - d) 197

26. Read the graph and answer the question:



On which days Riki received less than 60 messages?

- a) Sunday, Monday, Friday
- b) Sunday, Friday, Saturday
- c) Monday, Friday, Saturday
- d) Monday, Tuesday, Friday

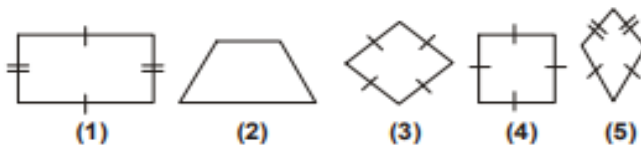
27. Which of the following statements is incorrect?

- a) The sum of angles in a triangle is 2 right angles
- b) The exterior angle of a triangle is equal to the interior angle of the triangle
- c) The hypotenuse is the longest side of a right angled triangle
- d) All isosceles triangles must have 2 equal sides

28. How many numbers are there between 15 and 45 which are exactly divisible by 3?

- a) 11
- b) 10
- c) 9
- d) 12

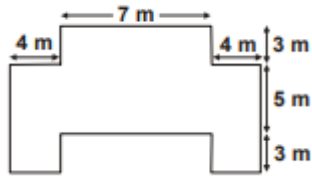
29. Which quadrilateral have exactly four lines of symmetry ?



- a) (1)
- b) (3)
- c) (4)
- d) (5)

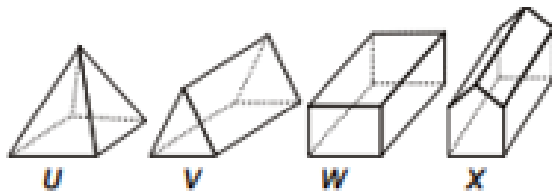


30. Find the perimeter of the given shape.



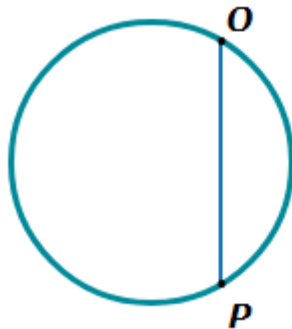
- a) 56      b) 48      c) 58      d) 62

31. which of the following figures has 10 vertices?



- a) Figure U  
b) Figure V  
c) Figure W  
d) Figure X

32. What is  $\overline{OP}$

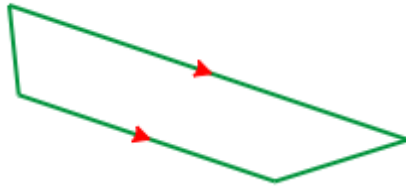


- a) Diameter      b) Radius      c) Chord      d) Tangent

33. A builder has some red and grey bricks. The red bricks weigh 7 kilograms each, and the grey bricks weigh 1 kilogram each. If the total weight of all 6 bricks is 12 kilograms, how many of each type of brick does the builder have?

- a) 2 red & 4 grey      b) 1 red & 5 grey  
b) 5 red & 1 grey      d) 3 red & 3 grey

34. Identify the name of this polygon



- a) Parallelogram
  - b) Trapezium
  - c) Kite
  - d) Rhombus
35. The value of  $899 \times 3 + 899 \times 7 =$  \_\_\_\_\_
- a) 89900
  - b) 8990
  - c) 89910
  - d) 8999
36. Find out a rational number lying halfway between  $\frac{2}{7}$  and  $\frac{3}{4}$ .
- a)  $\frac{28}{56}$
  - b)  $\frac{29}{58}$
  - c)  $\frac{29}{56}$
  - d)  $\frac{28}{59}$
37. which expression represents the product of  $n$  and 25?
- a)  $25n$
  - b)  $25-n$
  - c)  $25+n$
  - d)  $25 \div n$
38. Sum of two numbers is 1. Their difference is 3. What is their product?
- a) -4
  - b) -2
  - c) 4
  - d) 2

39. Given that

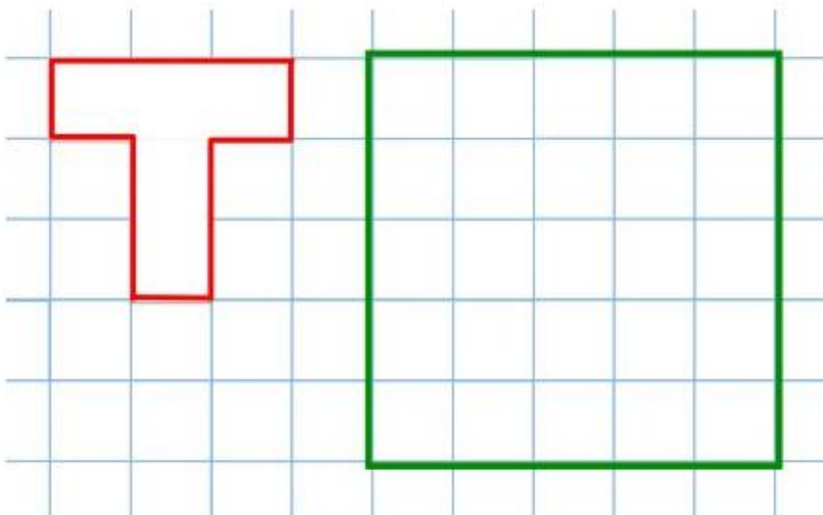
$$\text{😊} + \text{😊} + \text{😞} = \text{😞} + \text{😞} + \text{😞} + \text{😞}$$

If each 😞 stands for  $\frac{1}{4}$ , what does each 😊 stand for ?

- a)  $\frac{3}{4}$
  - b)  $\frac{3}{2}$
  - c)  $\frac{3}{8}$
  - d)  $\frac{3}{5}$
40. If  $n$  denotes a natural number, what does ' $2n$ ' denote?
- a) a prime number
  - b) an even number
  - c) an odd number
  - d) a composite number

### SECTION D – ACHIEVERS SECTION

41. How many T's can be placed inside the square without intersection?



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

42. Mr. and Mrs. Sahu borrow ₹54,000 to buy a new washing machine. The loan is to be paid off in three years without interest. How much is each monthly payment?

- a) ₹ 1,200
- b) ₹ 1,500
- c) ₹ 1,800
- d) ₹ 800

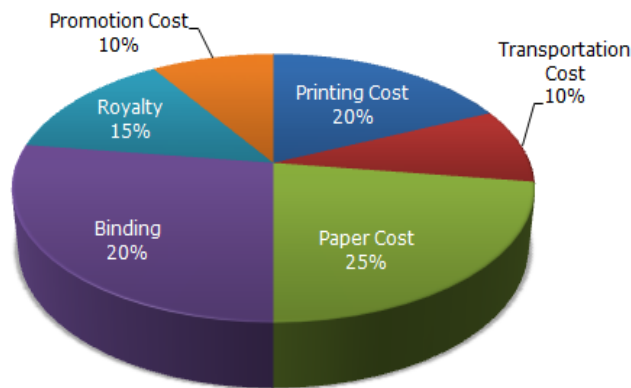
43. Grayson bought 4 packs of red bouncy balls and 2 packs of yellow bouncy balls. Each package contained 8 bouncy balls. How many more red bouncy balls than yellow bouncy balls did grayson buy?

- a) 18 balls
- b) 16 red balls
- c) 24 balls
- d) 26 balls

44. **Direction (44 - 45)**

The following pie-chart shows the percentage distribution of the expenditure incurred in publishing a book. Study the pie-chart and the answer the questions based on it.

Various Expenditures (in percentage) Incurred in Publishing a Book



What is the central angle of the sector corresponding to the expenditure incurred on Binding ?

- a)  $90^\circ$
- b)  $60^\circ$
- c)  $45^\circ$
- d)  $72^\circ$

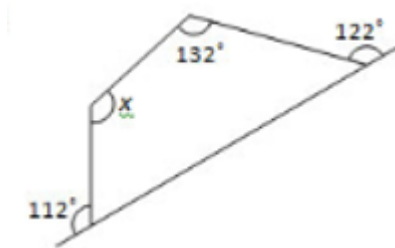
45. If the royalty is 15%. Give the answer in fraction.

- a)  $\frac{3}{4}$
- b)  $\frac{1}{4}$
- c)  $\frac{20}{3}$
- d)  $\frac{3}{20}$

46. Which of the following is an equation

- a)  $4.5x + 5 = 9$
- b)  $4x + 6 < 4$
- c)  $4x + 5 > 3$
- d)  $4x + 5$

47. Choose the right value for missing angle x.



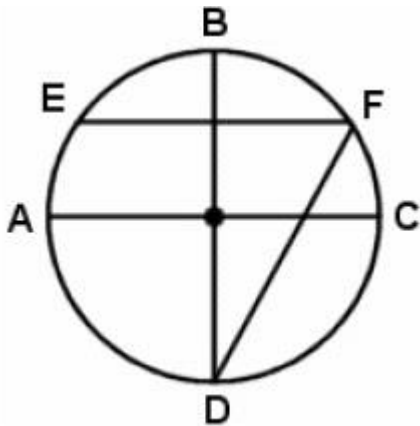
- a)  $120^\circ$
- b)  $92^\circ$
- c)  $102^\circ$
- d)  $89^\circ$

48. Pinky has RS. 12,000. How much ballet tickets she will be able to buy?

ballet ticket	₹2,540.00
opera ticket	₹5,156.00
orchestra ticket	₹2,908.00
boat show ticket	₹1,139.00
basketball ticket	₹2,587.00

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

49. The bar graph below shows :



- a) BD and AC
- b) FD and AC
- c) EF and BD
- d) FD and BD

50. find the missing terms in the sequence.

-45, \_\_ , -29, -21, -13, \_\_\_\_\_, 3

- a) 6 and 38
- b) 5 and -37
- c) 37 and 5
- d) -37 and -5