S I M S®

(SCHOLARS INTEGRAL MATHS & SCIENCE OLYMPIADS)

CLASS VIII

BIGGEST NATIONAL LEVEL OLYMPIADS (STAGE - II) : 2025-26

MAX. MARKS : 90 | **SIMO QUESTION PAPER** | **TIME: 60 MIN.**

NAME OF THE STUDENT : .....

HALL TICKET NUMBER : .....

NAME OF THE SCHOOL : .....

INSTRUCTIONS:

- This question paper contains 30 questions.
- First 25 questions (1 to 25) are single correct answer type. Each question carries 3 marks.
- Next 5 questions (26 to 30) are one or more than one correct answer type. Each question carries 3 marks.
- No negative marks.
- You have not allowed to use a calculator or any other electronic devices in the examination hall.
- Read the instructions given in the answer sheet(OMR sheet) before answering the questions.
- The answer sheet should be returned to the invigilator before leaving the examination hall (You can retain the question paper with you)
- Results will be available at www.simsolympiads.com

Single Correct Answer Type : 25 × 3 = 75

1. The largest four digit number which when divided by 5, 7, 11 or 13 leaves a remainder of 4 in each case is

1) 5109 2) 5009 3) 5001 4) 5005

2. $\frac{1}{1\times 2}+\frac{1}{2\times 3}+\frac{1}{3\times 4}+\ldots+\frac{1}{9\times 10}=$ _____.

1) 2 2) 1 3) $\frac{9}{10}$ 4) $\frac{1}{10}$

3. After walking 1 km towards East and then he turns to North and walks 4 km. Again he turns to East and walks 3 km. After this he turns to South and walks 7 km. How far is he now from his starting point ?

1) 15 km 2) 7 km 3) 4 km 4) 5 km

4. If $3^{(27x)} = 27^{(3x)}$, then the value of x is _____.

1) $\frac{1}{3}$ 2) 2 3) 3 4) $\frac{1}{2}$

5. The positive difference of two natural numbers whose sum is 85 and their LCM is 102 is ____.

1) 11 2) 17 3) 31 4) 6

6. The value of $\left[35.7-\left(3+\frac{1}{3+\frac{1}{3}}\right)-\left(2+\frac{1}{2+\frac{1}{2}}\right)\right]$ is ____.

1) 30 2) 34.8 3) 36.6 4) 41.4

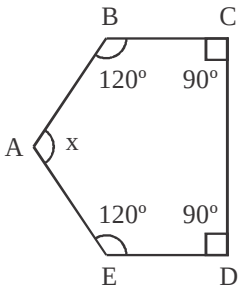
7. In the following figure, the value of x is _____.

1) 60º

2) 120º

3) 90º

4) 135º



8. The difference of the cubes of two consecutive positive integers is 217. What is the sum of the two integers ?

1) –17 2) 8 3) 17 4) 13

9. If $1^3+2^3+3^3+4^3+5^3+6^3+7^3+8^3+9^3 = 2025$, then the value of $(0.11)^3 + (0.22)^3 + (0.33)^3 + \ldots + (0.88)^3 + (0.99)^3$ is

1) 0.2695 2) 0.3695 3) 3.695 4) 2.695

10. The mean of 31 results is 60. If the mean of first 16 results is 58 and that of the last 16 results is 62, then the 16^{th} result is _____.

1) 62 2) 61 3) 60 4) 64

11. The only two digit number that is both a perfect square and a perfect cube is 64. What is the sum of the digits of the only 3-digit number that is both a perfect square and a perfect cube ?

1) 7 2) 12 3) 18 4) 23

12. In the given figure, if AC || OD and AO || EF.

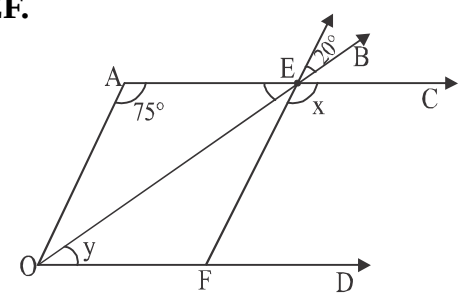
Then, measure of angles x and y is

1) x = 75°, y = 85°

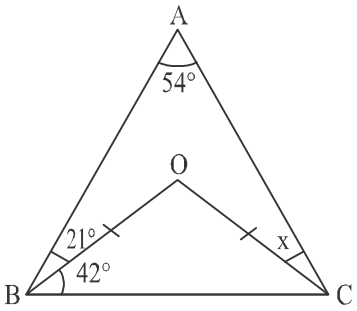
2) x = 95°, y = 85°

3) x = 75°, y = 95°

4) x = 95°, y = 75°



13. From the given figure, find the value of ∠x.



1) 27°

2) 23°

3) 42°

4) 21°

14. A shopkeeper sold two watches for ` 425 each, gaining 10% on one and losing 10% on the other. Which of the following is true ?

1) He gains 1% 2) He loses 1% 3) He gains 2% 4) He loses 2%

15. If 20 men consume a certain quantity of rice in 14 days, in how many days will 8 men consume the same quantity of rice ?

1) 2 2) 35 3) 4 4) 38

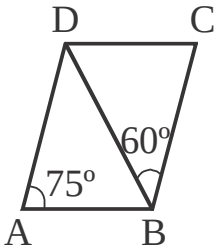
16. Rectangle ABCD has sides AB and BC in the ratio 3 : 1. If the diagonal AC is 5 units, then the area of the rectangle is

1) 9 sq. units 2) $\frac{15}{2}$ sq. units 3) 8 sq. units 4) 10 sq. units

17. In ΔDEF, PQ is a line segment drawn through midpoints of DE and DF respectively. If EF = 7.6 cm, then the length of PQ is _____.

1) 3.8 cm 2) 4.5 cm 3) 7.2 cm 4) 2.6 cm

18. In the given figure, ABCD is a parallelogram, the measures of ∠DBA and ∠BDA respectively are



1) $45^0, 60^0$ 2) $60^0, 45^0$

3) $70^0, 35^0$ 4) $35^0, 70^0$

19. The perimeter of a rectangle is numerically equal to the area of rectangle. If width of rectangle is $2\frac{3}{4}$ cm, then its length is _____.

1) $\frac{11}{3}$ cm 2) $\frac{22}{3}$ cm 3) 11 cm 4) 10 cm

20. If $a = 3^{-3} - 3^3$ and $b = 3^3 - 3^{-3}$ then the value of $\frac{a}{b} - \frac{b}{a}$ is __.

1) 0 2) 1 3) –1 4) 2

21. $\left[\left\{\left(-\frac{1}{3}\right)^2\right\}^{-2}\right]^{-1}$ = _____.

1) $\frac{-1}{81}$ 2) $\frac{1}{9}$ 3) $\frac{1}{81}$ 4) $\frac{-1}{9}$

22. The mean age of a family of 6 members is 25 years. The mean age of family a 45 years old member leaves is

1) 25 years 2) 19 years 3) 23 years 4) 21 years

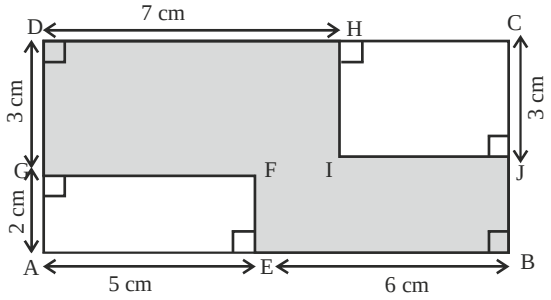
23. Two supplementary angles differ by 40°. The measure of largest angle is _____.

1) 70° 2) 80° 3) 140° 4) 110°

24. Simplify: $222-\left[\frac{1}{3}\left\{42+\left(56-\overline{8+9}\right)\right\}+108\right]$.

1) 81 2) 357 3) 87 4) 78

25. Find the area of the shaded portion (in cm²).



1) 44

2) 33

3) 48

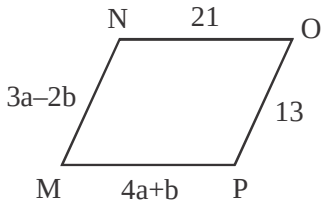
4) 35

One or more Correct Answer Type: 5 × 3 = 15

26. If $a+\frac{1}{b+\frac{1}{c}}=\frac{38}{7}$**, then the positive values of a, b and c are**

1) a = 5 2) b = 1 3) b = 2 4) c = 3

27. The quadrilateral MNOP a parallelogram, then



1) a = 5

2) b = 1

3) a = 7

4) b = 8

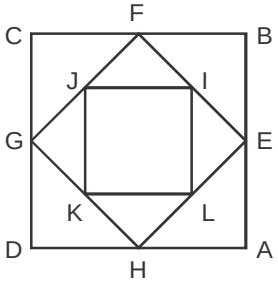
28. Which of the following is a factor of the expression $ab(x^2-y^2)+xy(b^2-a^2)$?

1) bx – ay 2) bx + ay 3) ab – xy 4) ax + by

29. The sum of two numbers is 2490. If 6.5% of one number is equal to 8.5% of the other, then the numbers are

1) 1411 2) 1311 3) 1079 4) 1089

30. In the figure, sides of the three squares are in the ratio of



1) 4 : 2: 1 2) 2: $\sqrt{2}$:1

3) $1:\frac{1}{\sqrt{2}}:\frac{1}{2}$ 4) $4:2:\sqrt{3}$

*** ***ALL THE BEST*** ***