MATHEMATICS OLYMPIAD GRADE 4

DATE: 12 AUGUST 2024 – 16 AUGUST 2024

TIME: 90 MINUTES

INSTRUCTIONS:

1. This booklet has 15 multiple choice and 5 open ended questions.
2. Use the answer sheet provided.

   Circle the letter corresponding to your answer.
3. All working details must be done in the space provided.
4. Calculators are not permitted.
5. Diagrams are not necessarily drawn to scale.
6. The first 15 problems carry 1 mark each and the next 5 carry 2 marks each.
7. You have 90 minutes for the paper which works out to an average of 4.5 minutes per question.
8. Read the questions carefully before answering.
9. Visit the website: www.saolympiads.co.za.

GRADE FOUR

1. Evaluate: 400 – (150 + 50)

   (A) 100 (B) 150 (C) 200 (D) 250

2. The number one thousand, one hundred and one can be written as:

   (A) 1101 (B) 1011 (C) 1001 (D) 1111

3. Evaluate:
   204 x 25

   (A) 4800 (B) 4900 (C) 5000 (D) 5100

4. What is the 10^{th} number of this addition sequence?

   2; 5; 8; 11; …

   (A) 28 (B) 29 (C) 39 (D) 42

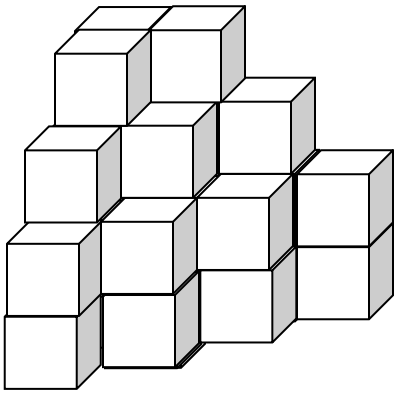
5. In a hall there are 36 rows. Each row has 45 chairs. How many people can the hall seat?

   (A) 1600 (B) 1610 (C) 1620 (D) 1640

6. Janice placed a cake in the oven at 10:10. It took 2 hour 55 minutes to bake. At what time must the cake be removed from the oven?

   (A) 11:65 (B) 12:45 (C) 12:55 (D) 13:05

7. The total number of cubes in this arrangement is…



(A) 26 (B) 27 (C) 28 (D) 29

8. Candice removed $\frac{1}{8}$ of the water from a full tank of water. She then removed 15 litres and still found the tank with half the water. What is the capacity of the tank in litres?

(A) 45 (B) 40 (C) 36 (D) 30

9. Determine the 3 digit number if: -

- The ten's digit is 1 more than three times the unit's digit.
- The number is divisible by 4.
- The sum of the digits is 18.

(A) 968 (B) 936 (C) 972 (D) 962

10. Earl collected 40 more coins than twice the number of coins that Fourie collected. If both collected 340 coins, then how many coins did Fourie collect?

(A) 100 (B) 110 (C) 112 (D) 114

11. In this subtraction problem, certain digits have been replaced by letters.
What is the value of A + B?

$$\begin{array}{r} A\ B\ A \\ -\ B\ 6\ 8 \\ \hline 1\ 6\ 7 \end{array}$$

(A) 11 (B) 10 (C) 9 (D) 8

12. If the sum of the dates of the 5 Fridays in a month is 75 then what is the date of the 2nd Tuesday of the month?

(A) 14th (B) 13th (C) 12th (D) 11th

13. There are R2 and R10 coins in the container. There are twice the number of R2 coins as R10 coins. When added together, the total amount was R700. How many R2 coins were there?

(A) 140 (B) 120 (C) 100 (D) 80

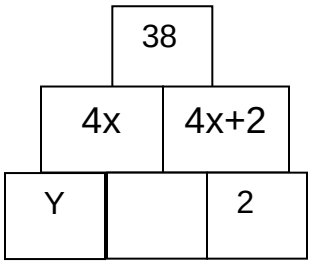
14. Theo had a secret number. Jes found $\frac{1}{2}$ of this number. May found $\frac{1}{4}$ of Jes's number. Saro added 15 to the number to obtain 20. What was Theo's secret number?

(A) 60 (B) 50 (C) 40 (D) 36

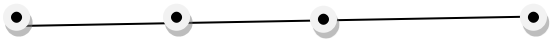
15. At a soccer tournament each team played every other team twice. How many matches were played if there were 10 teams that participated?

(A) 110 (B) 90 (C) 72 (D) 56

16. In the game below called “PYRAMATHS”, the number on the left is doubled and added to the number on the right to give the number in the box above. Find the number that should replace **Y**.



17. At a special event every 4th learner was given 3 more items. If 120 more items were given then what is the maximum number of learners that could have attended the event?

18. 

Four stops R; T; B and M (Not in order) are on a straight road. B is 350m to the ‘ left of T.

M is 500m to the right of R. B is 650m to the left of M.

What is the distance in metres (m) from R to T?

19. A company made cycles with 2 wheels and 3 wheels of the same size.
There were 145 wheels and 60 cycles. How many 2 wheel cycles are there?

20. Dineo made 2 digit numbers from 5 plastic digits. These digits are:
6; 4; 5; 3 and 1 .
How many 2 digit numbers are even?

MARKS: 1-15: 15 X 1 = 15
16-20: 5 X 2 = 10

TOTAL: 25