MATHEMATICS OLYMPIAD GRADE FIVE

DATE: 5-19 AUGUST 2025

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.

1. Evaluate: 777 + 333 - 222
   (A) 1011 (B) 999 (C) 888 (D) 777

2. Evaluate: 250 x 24
   (A) 6 000 (B) 5 000 (C) 4 800 (D) 4 000

3. Determine the difference between 3000 and 444.
   (A) 2 456 (B) 2 556 (C) 2 666 (D) 2 766

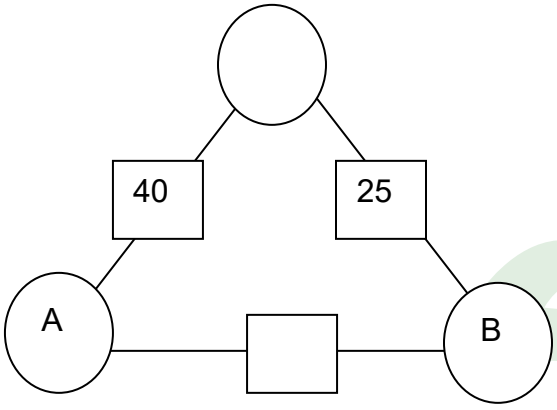
4. Divide 1584 desks among 48 classrooms.
   (A) 36 (B) 34 (C) 33 (D) 32

5. Tracy took 36 wickets for 576 runs. Determine her run rate as runs per wicket.
   (A) 13 (B) 14 (C) 15 (D) 16

6. If $\frac{1}{3}$ of the trees in the orchard is 1500 then what is $\frac{1}{2}$ of the trees in the orchard?
   (A) 2250 (B) 2400 (C) 2500 (D) 2600

7. If the sum of the dates from Sunday to Saturday is 84 then what is the date of the third Tuesday of the month?
   (A) 17th (B) 18th (C) 19th (D) 20th

8. In the game called “Geogons”, the product of the 2 numbers in the 2 circles determine the number in the square between them.



If A + B = 13 then find the value of A.

(A) 6 (B) 7 (C) 8 (D) 9

9. Ria counted in 2s from 10 to 60. She also counted in 3s from 10 to 60. How many numbers were counted twice?
(A) 12 (B) 11 (C) 10 (D) 9

10. A container is $\frac{5}{8}$ full of grain. When 180 grams was removed then it was $\frac{1}{4}$ full. What is the mass of the grain in grams?
(A) 300 (B) 360 (C) 420 (D) 480

11. Lisha cleaned one and half times as many onions as Virginia. Both cleaned 200kg onions. How many kg onions did Lisha clean**?**
(A) 140 (B) 130 (C) 120 (D) 110

12. A rectangular ground measures 120 metres by 80 metres. If a border of 10 metres was created around the ground, then determine the length in metres of fencing that will be required.
(A) 480 (B) 520 (C) 540 (D) 560

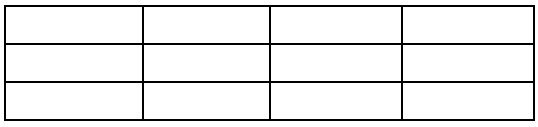
13. After an increase of $\frac{1}{4}$ in the price, an item was sold for R1600. What was the price of the item before the increase?
(A) R1200 (B) R1280 (C) R1360 (D) R1480

14. Study the following problem. Do you know what (@) is doing to the 2 numbers?
7@3 = 2 2@3=3 7@4 = 5 3@5=4

After you have discovered what (@) is doing then find the answer to: 4@6

(A) 9 (B) 8 (C) 7 (D) 6

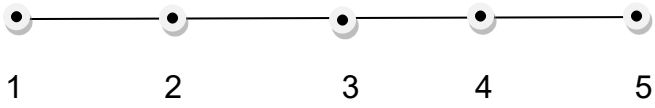
15. How many rectangles of all sizes are in this figure?



(A) 58 (B) 60 (C) 62 (D) 64

16. Jerry added the digits of the 2 digit number. He subtracted the digits of the two digit number. When he added the two answers he had 14 and when he subtracted the two answers he had 8. What is the 2 digit number?

17. Three machines working together produced ice lollies as follows:-
Machines A and B produced 120.
Machines B and C produced 180
Machines A and C produced 100.
How many ice lollies did they produce when all 3 machines work together?

18. 

5 houses A;C;E ;F and H are on a straight road and not necessarily in that order. F and C are between E and A. H is to the left of A and right of C. E and F are to the left of C.
Write down the letters that correspond with 1; 2; 3; 4; 5.

19. Study the following arrangement of numbers:-

2 4 6

8 10 12 14

16 18 20 22 24

.....

What is the last number of the 20th row?

20. Colour beads red (R); blue (B) and green (G) were arranged as follows:-

R R B B G R R B B G G R R B B G G G R R B B G G G G R R B B.....

The arrangement has 360 beads.
How many blue beads are there?

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

TOTAL: 25