# SOUTHERN AFRICAN PRIMARY MATHEMATICS OLYMPIAD FEMSSISA

GRADE 5

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**DATE:** 28 AUGUST 2023 – 1 SEPTEMBER 2023

**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 FIVE**

1. Evaluate: 24 - 4 x 5 + 4

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

2. Determine ☐: such that: (40 - ☐) x 8 = 72

   (A) 31 (B) 32 (C) 33 (D) 34

3. If 23 x ☐ = 111 then 69 x ☐ =

   (A) 555 (B) 444 (C) 333 (D) 222

4. The sum of the dates from Monday to Friday is 70. What is the date of the 3rd Tuesday of the month?

   (A) 22nd (B) 21st (C) 20th (D) 19th

5. If 8 August 2023 is a Tuesday, then what day of the week was it 110 days ago?

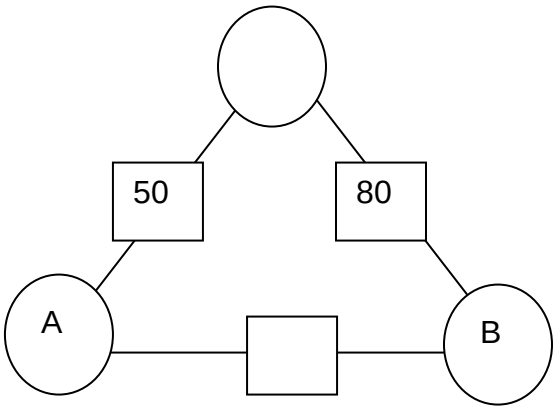
   (A) Wednesday (B) Thursday (C) Friday (D) Saturday

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 In this subtraction problem, certain digits have been replaced by letters.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

$$\begin{array}{r} A\ B\ A \\ -\quad B\ 9 \\ \hline 5\ 9\ B \end{array}$$

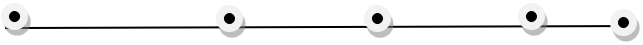
   (A) 48 (B) 42 (C) 32 (D) 24

7. In the game called “Arithmogons”, the sum of the 2 numbers in the 2 circles, determine the number in the square between them.




If A + B = 90 then find the value of B.

(A) 60 (B) 50 (C) 40 (D) 30

8. 

Five stop signs A; B; C; D and E are on a straight road. B is 620 metres to the right of A, E is 650 metres to the left of D and 520 metres to the right of C. C is 300 metres to the left of A. Determine the distance in metres from C to D.

(A) 1110 (B) 1130 (C) 1150 (D) 1170

9. If 102 x 21 = 2142, then 102 x 22 =…

(A) 2244 (B) 2234 (C) 2224 (D) 2214

10. If $\frac{1}{4}$ of my coins is 600 then how much is $\frac{2}{3}$ of the coins?

(A) 1800 (B) 1700 (C) 1600 (D) 1500

11. Cindy had twice as many R2 coins as R5 coins. The total amount was R720. How many R5 coins did Cindy have?

(A) 90 (B) 80 (C) 60 (D) 50

12. A rectangular garden measures 240 metres all round. If the length is 30 metres less than twice its width, then find the width in metres.

(A) 80 (B) 60 (C) 85 (D) 50

13. After an increase of $\frac{1}{4}$ in the price, an item was sold for R800. What was the price of the item before the increase?

(A) R600 (B) R640 (C) R680 (D) R720

14. Study the following problem. Do you know what (@) is doing to the 2 numbers?

4@3 = 5 6@5=9 7@7 = 14 6@2=0

After you have discovered what (@) is doing then find the answer to: 9@6

(A) 7 (B) 8 (C) 9 (D) 10

15. Jake said that if he was 3 years older, he will be half the age of Carey. Their combined ages are 27. What is Jake's age?

(A) 7 (B) 8 (C) 9 (D) 10

16. When Mary counted the sweets in 3's he had 2 left over. When he counted in 4's she had 3 left over. When she counted in 5's she had none left over. What is the smallest number of sweets Mary had?

17. Tina does grocery shopping every 5 days and marketing every 4 days. On 16 March she did her grocery shopping and marketing. On which next earliest date will she do both chores?

18. Lorna collected $\frac{1}{3}$ the number of coins that Mandy collected. Mandy collected two and one quarter ($2\frac{1}{4}$) the number of coins collected by Enver. If all three collected 480 coins then how many coins did Mandy collect?

19. Jakes numbered the houses on a straight road from 80 to 180 using different digits. How many 4's and 8's did Jakes use?

20. Colour stones white (W) and blue (B) were used to make a Pendant with the last stone being blue. The stones were arranged as follows:-

**W W B B W W B B B B W W B B B B B B W W B B B B B B B B ……**

The pendant has 108 stones.
How many blue stones does it have?

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

**TOTAL:** 25