



science
& technology

Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

FEMSSISA SOUTHERN AFRICAN PRIMARY MATHEMATICS OLYMPIAD

(SAPMO)
GRADE FIVE
FINAL ROUND
DATE: 12 OCTOBER 2017
TIME: 120 MINUTES

Instructions:

1. This booklet has 20 questions.
2. Use the answer sheet provided. Enter your answer in the block.
3. All working details must be done in the space provided.
3. Calculators are not permitted..
4. Diagrams are not necessarily drawn to scale.
5. The first 15 problems carry one mark each and the next 5 carry 2 marks each.
6. You have 120 minutes for the paper which works out to an average of 6 minutes per question.
7. Read the questions carefully before answering.



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GRADE FIVE: 2017 FINAL ROUND

1. Write down the 15th number of this addition sequence.

4; 10; 16; 22; ...

2. Find the value of \triangle

$$20 + \square + \triangle = \square + 32 - \triangle$$

3. Find the value of

$$\frac{444+444+444+444}{444+444+444+444+444+444}$$

4. Farah counted in 5's from 7 as follows:-

7; 12; 17; 22; ...

She stopped at the 30th number. What number did she count last?

5. Determine \square if

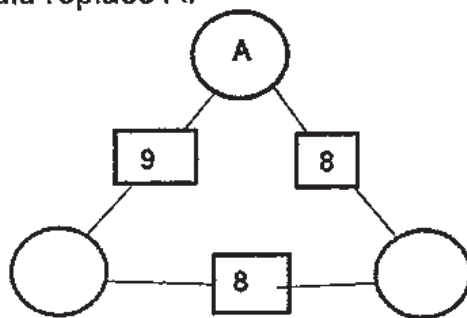
$$\square \times \square + \square = 30$$

6. In this addition problem certain digits have been replaced by letters.

What is the value of $A + B + C$?

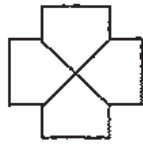
$$\begin{array}{r} A B C \\ B C \\ \hline A B C \\ \hline 1 2 7 5 \end{array}$$

7. In the game below called "PYRAMATHS" the sum of the 2 numbers in the 2 circles gives the number in the circle between them. Find the number that should replace A.



8. Four learners A; B ; C and D scored a total of 225 marks.
- B scored 10 marks less than A
 - D scored 10 marks less than B
 - A scored 15 marks less than C
- What mark did B score?
9. If three quarters of a certain number is 72 then what is one sixth of this number?
10. When the 7 consecutive natural numbers were added the answer is 112. What is the second largest number?

11. How many lines of symmetry does this figure have have?



12. A container is $\frac{1}{3}$ full of coloured water. When 30 litres are added then it is $\frac{1}{2}$ full. What is the capacity of the container when full?
13. The cost of 6 items is R17. What would you pay for 18 such items at the same rate?
14. If the sum of the dates from Sunday to Saturday is 77 then what is the date of the 1st Tuesday of the month?
15. How many 3 digit numbers from 135 to 179 that have all odd digits?
16. If 6 cakes cost R32.40 then what will 4 such cakes cost at the same rate?

17. Six people A;B;C;D;E and F sat next to each other at a straight table on the same side of the table. D sat between B and A. E sat to the right of C but to the left of F. E sat between F and A. D sat between C and A. B sat to the immediate right C. Who sat to the immediate left of C?
18. Goon is 4 years less than half of Heather's age. In 8 years time Heather will be 40. What is Goon's age?
19. Three students Albie; Bean and Corrie play one of 3 games namely Chess; Volleyball and Tennis.
- Albie does not play Chess
 - Corrie does not play Tennis
 - Bean used to play Volleyball
 - Albie does not like Tennis
- What game does Bean play?
20. Study the following arrangement of numbers:-
- 3
 4 5
 6 7 8
 9 10 11 12

- What is the 3rd number of the 15th row?

TOTAL: $15 \times 1 = 15$
 $5 \times 2 = 10$

25