South African Primary School
Mathematics Olympiad: Grade 4 - 7

science & innovation
Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA

SA OLYMPIADS

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MATHEMATICS OLYMPIAD GRADE SIX

DATE: 6 - 20 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: $4 + 8 \times \frac{1}{2}$
   (A) 4 (B) 6 (C) 8 (D) 10

2. What is (15 ÷ 8) correct to 1 decimal digit?
   (A) 1.95 (B) 1.9 (C) 1.8 (D) 1.7

3. Evaluate: 132 + 302 - 44
   (A) 390 (B) 380 (C) 370 (D) 360

4. Evaluate: 244 x 25 x 3
   (A) 18800 (B) 18600 (C) 18400 (D) 18300

5. Evaluate: 8 ÷ 0.04 x 0.2
   (A) 40 (B) 50 (C) 60 (D) 70

6. Evaluate: 201 x 58 – 29x2
   (A) 11900 (B) 11800 (C) 11600 (D) 1160

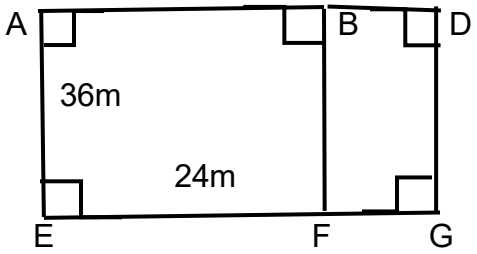
7. What is the price of 2kg of butter if 400g cost R120 at this rate?
   (A) R720 (B) R680 (C) R600 (D) R640

8. A water tank is $\frac{3}{4}$ full. After 300 litres are filled it is $\frac{5}{6}$ full. What is the capacity in litres of the tank when full?
   (A) 4800 (B) 4500 (C) 4200 (D) 3600

9. When the 4-digit number 7mm7 is divided by 9 the remainder is 3. The value of m is ...
   (A) 6 (B) 7 (C) 8 (D) 9

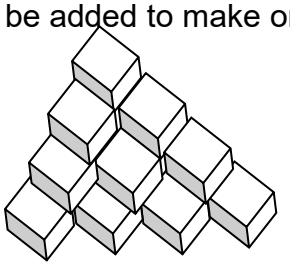
10. Alicia buys items at 6 items for 25 coins. She sells them at 7 for 40 coins. How many items must she sell to make a profit of 650 coins?
    (A) 480 (B) 440 (C) 430 (D) 420

11. The area of rectangle ABFE is twice the area of rectangle BDGF. Determine the perimeter in metres of ADGE.



(A) 164 (B) 144 (C) 172 (D) 180

12. This tower is 4 storey high and is made up of cubes. What is the minimum number of cubes that must be added to make one large cube?

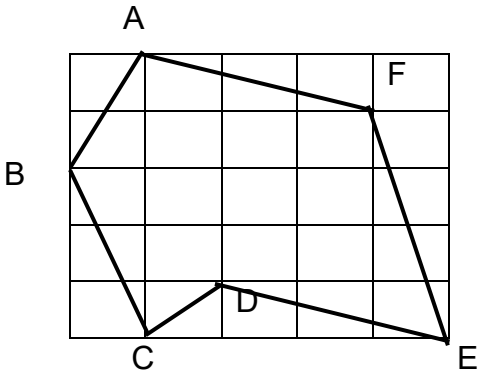


(A) 44 (B) 46 (C) 48 (D) 54

13. My watch loses 5 minutes every hour. The time was correct at 06:00. What was the actual time when the watch shows 17:00?
(A) 17:00 (B) 18:00 (C) 18:30 (D) 19:00

14. Tina is 3 years less than half the father's age. In 10 years time, the father will be 56. What is Tina's age now?
(A) 14 (B) 17 (C) 20 (D) 23

15. Determine the area of ABCDEF (in cm^2) if each square is $1cm^2$.



(A) 12 (B) 14 (C) 15 (D) 16

16. If $\frac{5}{12} - \frac{2}{n} = \frac{1}{4}$ then the value of 'n' is…

17.

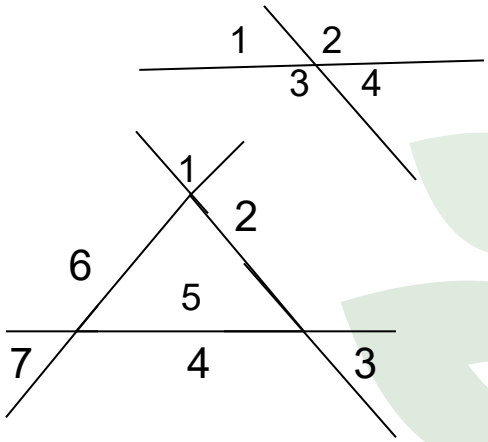
In a hotel the odd numbered rooms are made up in the following order:
The worker started at a certain numbered room, then did the room 5 numbers to the right, 7 rooms to the left and finally 3 rooms to the right numbered 4.
What room number did the worker start at?

18. 50 natural numbers were arranged from 21 to 70. Every 2rd number was struck off. Of the remaining numbers every 3rd number was struck off. How many prime numbers remained?

19. A plant increased its height by one third of its previous height every week. If its height in the 4th week was 64cm then determine its height in cm in the first week.

20. 2 lines divide the plane into 4 regions.

    3 lines divide the plane into 7 regions



How many lines would divide the plane into 92 regions?

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

TOTAL: 25