SOUTHERN AFRICAN FOUNDATION PHASE MATHEMATICS OLYMPIAD FEMSSISA

GRADE 2

E-mail : Info@saolympiads .co.za website: www.saolympiads.co.za

DATE: 28 AUGUST 2023 – 1 SEPTEMBER 2023

TIME: 75 MINUTES

INSTRUCTIONS:

1. This booklet has 15 multiple choice 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 10 problems carry 1 mark each and the next 5 carry 2 marks each.
7. You have 75 minutes for the paper which works out to an average of 5 minutes per question.
8. Read the questions carefully before answering. Do not rush.
9. Your teacher will read the questions to you.
10. Visit the websites: www.saolympiads.co.za.

ENJOY THE OLYMPIAD.

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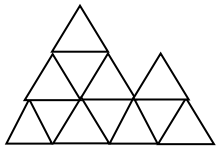
GRADE TWO

1. Count the number of <u>triangles of all sizes</u> in this arrangement:



(A) 18 (B) 17 (C) 16

2. Find the value of ☐:

☐ + 20 = 80 - 36

(A) 20 (B) 22 (C) 24

3. Find $\frac{1}{2}$ of 40 + $\frac{1}{4}$ of 40:

(A) 40 (B) 30 (C) 20

4. Connie counted in 2's as follows from 6:
6; 8; 10; 12;….

What position does 48 occupy in the above pattern?

(A) 22nd (B) 23rd (C) 24th

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5. Write down the value of ☐ in the following <u>addition</u> problem:

```
  ☐ ☐
  ☐ ☐
+ 8 ☐
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1 7 2
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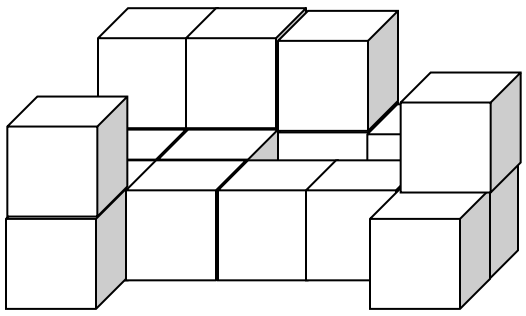
(A) 6 (B) 5 (C) 4

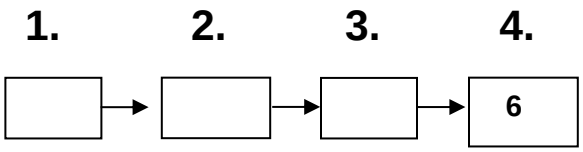
6. How many blocks are there in this stack?



(A) 16 (B) 17 (C) 18

7. Links and Chains

Halve the number and subtract 4 each time to move from one block to the other. Which number is in block 2?



(A) 48 (B) 52 (C) 56

8. There are 30 numbered blocks below:

1	4	7	10	13	16
19	22	25	28	31	34
37	40p	43	46	49	52
55	58	61	64	67	70
73	76	79	82	85	88

p moves 2 blocks downwards, 4 blocks to the right, 4 blocks upwards, 5 blocks to the left and 1 block downwards. On which block is *p* now on?

(A) 25 (B) 22 (C) 19

9. In the game below no letter must appear more than once in a row, column or 2 by 2 block (shaded). Use only H; E; R and D.

What letter would be at 1?

H		R	
	E		D
		1	

(A) E (B) H (C) D

10. Guess the number I stand for:

- **I am a 3 digit number.**
- **My hundred's digit is half my unit's digit.**
- **The sum of my digits is 17.**
- **My ten's digit is 3 less than my unit's digit.**

(A) 346 (B) 458 (C) 854

11. Wendy made up rooms at a hotel which were numbered 1 to 15 from left to right. She started at a certain room and then did the 8th room to the right. Next, she did the 6th room to the left which was room number 9. At what room number did she start from?

(A) 13 (B) 10 (C) 7

12. Study the following problem. Do you know what # is doing to the two numbers?

6 # 4 = 6 5 # 1 = 12
4 # 1 = 9 8 # 3 = 15

Find the value of: 7 # 3

(A) 8 (B) 9 (C) 12

13. Who is the shortest?
Ann is taller than Cory.
Damien is shorter than Bev.
Damien is taller than Cory.

(A) Cory (B) Ann (C) Damien

14. The sum of 3 different numbers is 63. Each number is 5 more than the previous number. What is the smallest number?

(A) 14 (B) 16 (C) 18

15. Joanne gave $\frac{1}{4}$ of her coins to Sarah.
Sarah now has the same number of coins as Thandi.
Thandi had 30 more coins than Sarah.
The total number of coins that all 3 had is 170.
How much did Joanne have?

(A) 112 (B) 116 (C) 120

END