

PRIMARY SCHOOL CHALLENGE 2025

LEVEL 2 CHALLENGE GRADE 6 AND 7 ROUND ONE

INSTRUCTIONS

1. The time allocated for this paper is 1 hour.
2. All participants must remain for the full allocated time.
3. Under no circumstances may extra time be given.
4. **This paper consists of 20 Questions over 2 Sections.**

Section A consists of 15 multiple choice questions. Each question is worth 1 mark. Circle the letter you have chosen as your answer in pen. Should you wish to change an answer, put a cross over the letter and then circle your new chosen letter. No mark will be awarded if two or more letters are circled without any crossing out.

Section B consists of 5 questions where only an answer must be given. Each question is worth 1 mark. Write only your answer in the allocated space.

5. Negative marking will not be applied. That is, marks will not be deducted for an incorrect answer.
6. Calculators (and other calculating devices) and geometry instruments are not allowed.
7. Figures are not necessarily drawn to scale.
8. Answer all questions on the answer sheet provided.
9. Paper may be used for rough working.

ENJOY AND HAVE FUN 😊

SECTION A

1. What is the value of: $\frac{2025+25}{2025-25}$?

- (A) 1,25 (B) 2,05 (C) 2,25 (D) 1,05 (E) 1,025

2. Which of the following statements are true:

- (1) 2025 is divisible by 5 (2) 2025 is a prime number
(3) 2025 is a perfect square (4) 2025 is a multiple of 25

- (A) (1) and (2) (B) (2) and (3) and (4) (C) (1) and (3) and (4)
(D) (3) and (4) (E) (1) and (3)

3. Over a long weekend 1400 people visited a zoo. The ratio of people visiting the zoo over the 3 days was as follows:

$$\text{Saturday} : \text{Sunday} : \text{Monday} = 2 : 4 : 1$$

How many people visited the zoo on Sunday?

- (A) 800 (B) 1000 (C) 400 (D) 200 (E) 600

4. I am a number greater than 2025 but smaller than 2225. If you multiply my first digit by my last digit, and then subtract the product of my middle two digits, you get 11.

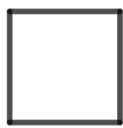
Which of the following numbers am I?

- (A) 2317 (B) 2148 (C) 2046 (D) 2116 (E) 2215

5. What is the remainder when 2025 is divided by 9?

- (A) 0 (B) 5 (C) 7 (D) 4 (E) 1

6. A coffee shop has exactly 12 small square tables. Exactly 4 people can sit at each table. All twelve tables are joined together into one long rectangular table.



1 table



All 12 tables joined together

If the restaurant was full, how many more people can sit down for coffee if the 12 tables are separate as they can if the 12 tables are joined together as shown?

- (A) 22 (B) 12 (C) 24 (D) 10 (E) 14

7. How many factors of 10 are also factors of 2025?

- (A) 10 (B) 2 (C) 5 (D) 4 (E) 3

8. A six-sided dice labeled 1 to 6 is thrown and the same number keeps landing on top. After each throw the repeating number is added in a sum. (For example $1+1+1+1+\dots$). This sum finally reaches 2025.

How many different numbers on the dice (1 to 6) could have repeatedly landed on top such that their sum was 2025?

- (A) 2 (B) 3 (C) 4 (D) 5 (E) 6

9. The intervals breaking up the number line below from 0 to $\frac{4}{5}$ are equal in length and value.



What is the value of $A + B$?

- (A) $\frac{2}{5}$ (B) 1 (C) $\frac{3}{5}$ (D) $\frac{3}{10}$ (E) $\frac{1}{2}$
10. What is the value of the following sum:

$$2025 + 25 - 24 + 23 - 22 + 21 - 20 + \dots + 5 - 4 + 3 - 2 + 1 \quad ?$$

- (A) 2037 (B) 2050 (C) 2026 (D) 2038 (E) 2048
11. Which of the following is the largest?

- (A) $3 \times 6 + 7$ (B) $6 \times 7 \div 3$ (C) $(7 - 3) \times 6$
 (D) $(6 + 7) \div \frac{1}{2}$ (E) $(7 + 0) \times 3$

12. What is the value of:

$$6 \times 7 + \left(6 \div \frac{1}{2}\right) - 7 \times 6 \quad ?$$

- (A) 3 (B) 6 (C) 1 (D) 12 (E) 7

13. Weeks in a calendar month run from Monday to Sunday. The sum of the dates of the month in a particular week is 161.

What is the date of the Saturday in that week?

- (A) 27th (B) 25th (C) 23rd (D) 28th (E) 24th

14. Given that: $\frac{90}{270} = \frac{A}{135} = \frac{30}{B} = \frac{C}{3} = \frac{6}{D}$

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

- (A) 105 (B) 76 (C) 154 (D) 67 (E) 168

15. We introduce two new operations $\oplus$ and $\triangle$ as follows:

$$G \oplus 6 = G + 7 \quad \text{and} \quad G \triangle 7 = G + 6$$

What is the value of $(7 \oplus 6) + (6 \triangle 7)$?

- (A) 25 (B) 13 (C) 67 (D) 26 (E) 76

SECTION B

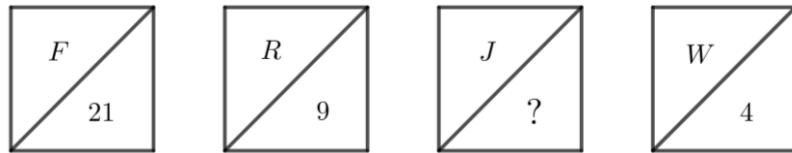
(Write your answer only in the allocated space)

16. The sum of the combined ages of a group of friends is 282. Twelve years ago, the sum of their combined ages was 114.

How many friends were in the group?

17. If c can equal 1 or 2 or 3, and d can equal 2 or 3 or 4, how many different answers are possible if we multiply c and d ? ($c \times d$)

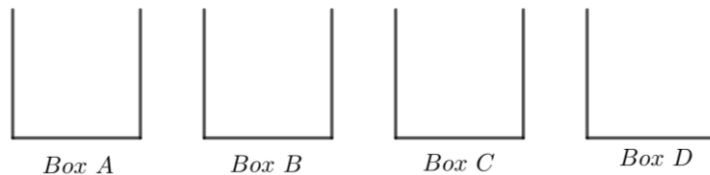
18. There is a pattern in the squares below:



What number goes in the question mark?

19. Boxes A , B , C , and D each have some balls in them.

- Box A has 24 balls inside it
- Box D has 21 balls inside it



- exactly $\frac{1}{4}$ of the balls in box A are moved to box C
- then exactly $\frac{1}{3}$ of the balls in box D are moved to box C
- then exactly $\frac{1}{5}$ of the balls in box C are moved to box B

What is the smallest possible number of balls inside box C before these three moves?

20. A total of 57 balls are put into 10 boxes. No box has less than 5 balls inside it. At least two boxes have an even number of balls in them.

What is the largest possible number of balls which could be inside a box?