



Junior Maths Mastery Challenge 2025

Paper C

Student Name: _____

Student No.: _____

DO NOT OPEN THIS BOOKLET UNTIL INSTRUCTED.

Read the instructions on the **answer sheet** and fill in your **name, school** and **other information**.

Record your answers in your **answer sheet**.

You have **1 hour 30 minutes** to answer all 25 questions.

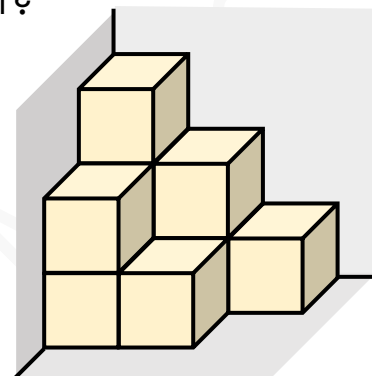
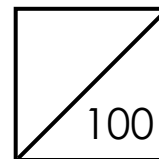
Junior Maths Mastery Challenge (2025)

Paper C

Section A (70 marks)

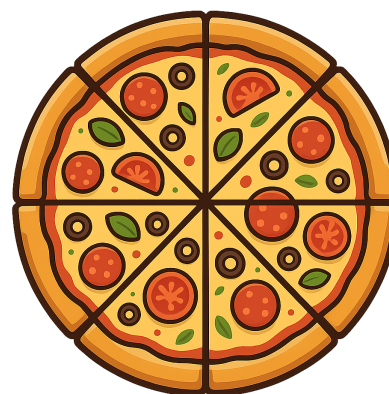
Questions 1 to 10 carry 3 marks each.

1. How many cubes is the solid made up of?



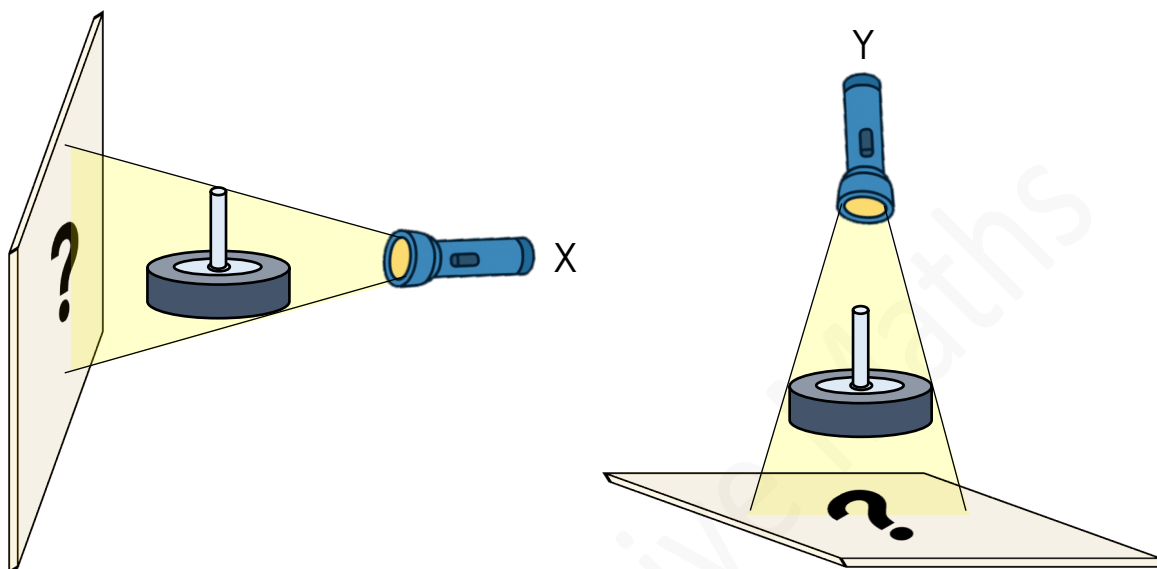
- (A) 6 (B) 7 (C) 8
(D) 9 (E) 10

2. Tim and Betty shared a pizza cut into 8 equal slices.
Tim ate $\frac{1}{4}$ of the pizza. Betty ate $\frac{1}{8}$ of the pizza.
What fraction of the pizza was left?



- (A) $\frac{3}{8}$ (B) $\frac{4}{8}$ (C) $\frac{5}{8}$
(D) $\frac{6}{8}$ (E) $\frac{10}{12}$

3. Roy shines a torchlight on an object from two different positions, X and Y, onto a board as shown.



Which of the following shadows would he see?

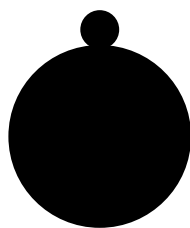


Figure 1



Figure 2



Figure 3

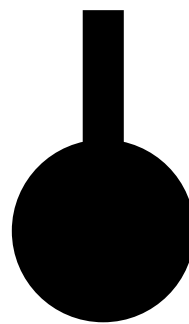


Figure 4

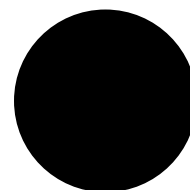


Figure 5

- (A) Figures 1 and 2
(B) Figures 1 and 3
(C) Figures 2 and 5
(D) Figures 3 and 5
(E) Figures 4 and 5



4. There are poles spaced out in equal intervals of 9 m along a path. The distance of the path is 405 m. There is a pole at each end of the path. How many poles are there?

(A) 44 (B) 45 (C) 46
(D) 47 (E) 55

5. Gary and Ash have \$510 altogether. If Gary gives Ash \$75, Gary will have 4 times as much money as Ash. How much money does Gary have?

(A) \$102 (B) \$333 (C) \$408
(D) \$468 (E) \$483

6. Ali thinks of three numbers. The sum of the first two numbers is 400. The 1st number is 36 more than the 2nd number. The 3rd number is 4 times the 2nd number. Find the sum of the three numbers.

(A) 828 (B) 1028 (C) 1128
(D) 1272 (E) 1344

7. There are 16 four-legged chairs and three-legged stools in a room. There are 54 legs altogether. How many three-legged stools are there?



(A) 7 (B) 8 (C) 9
(D) 10 (E) 11



8. Ali writes the following numbers in a pattern on a board.

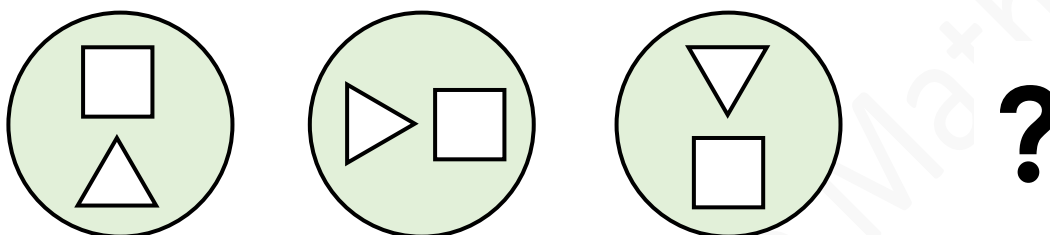
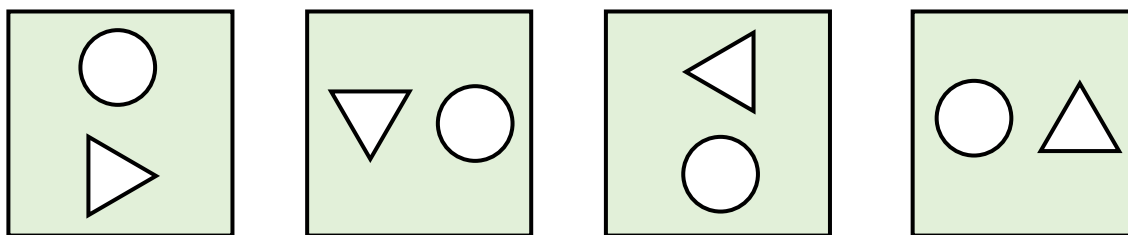
12345678910111213...

What is the 30th digit in the pattern he writes?

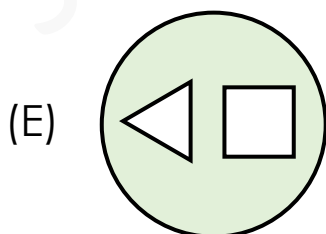
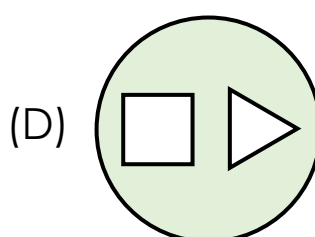
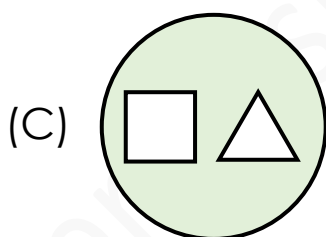
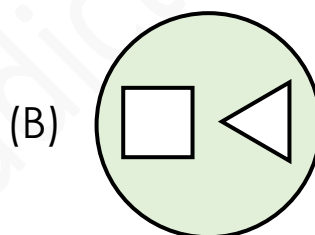
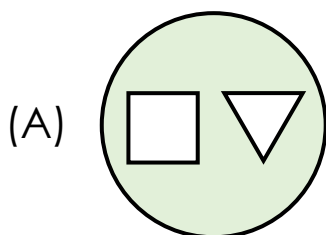
- (A) 0 (B) 2 (C) 3
(D) 4 (E) None of the above
- 9 Jane bought a pen that cost \$3.15. She gave the cashier 2 two-dollar notes. The cashier gave her the change in twenty-cent, ten-cent and five-cent coins. Which of the following is **not** a possible number of coins she received?

- (A) 6 (B) 8 (C) 10
(D) 12 (E) 14

10. Study the pattern below.



What shape comes next?



Questions 11 to 20 carry 4 marks each.

11. A bookshelf has 8 shelves with an equal number of books. Lisa takes all the books from 3 of the shelves and places them equally on the remaining 5 shelves. As a result, each of the remaining shelves has 9 more books. How many books are there altogether?

- (A) 72 (B) 80 (C) 88
(D) 96 (E) None of the above

12. In the long division below, each letter stands for a different digit. What digit does the letter S stand for?

$$\begin{array}{r}
 \begin{array}{cc} & P \quad S \\ 8 \mid & 5 \quad P \quad Q \\ & 5 \quad Q \\ \hline & R \quad Q \\ & R \quad Q \\ \hline & 0 \end{array}
 \end{array}$$

- (A) 2 (B) 4 (C) 6
(D) 7 (E) None of the above



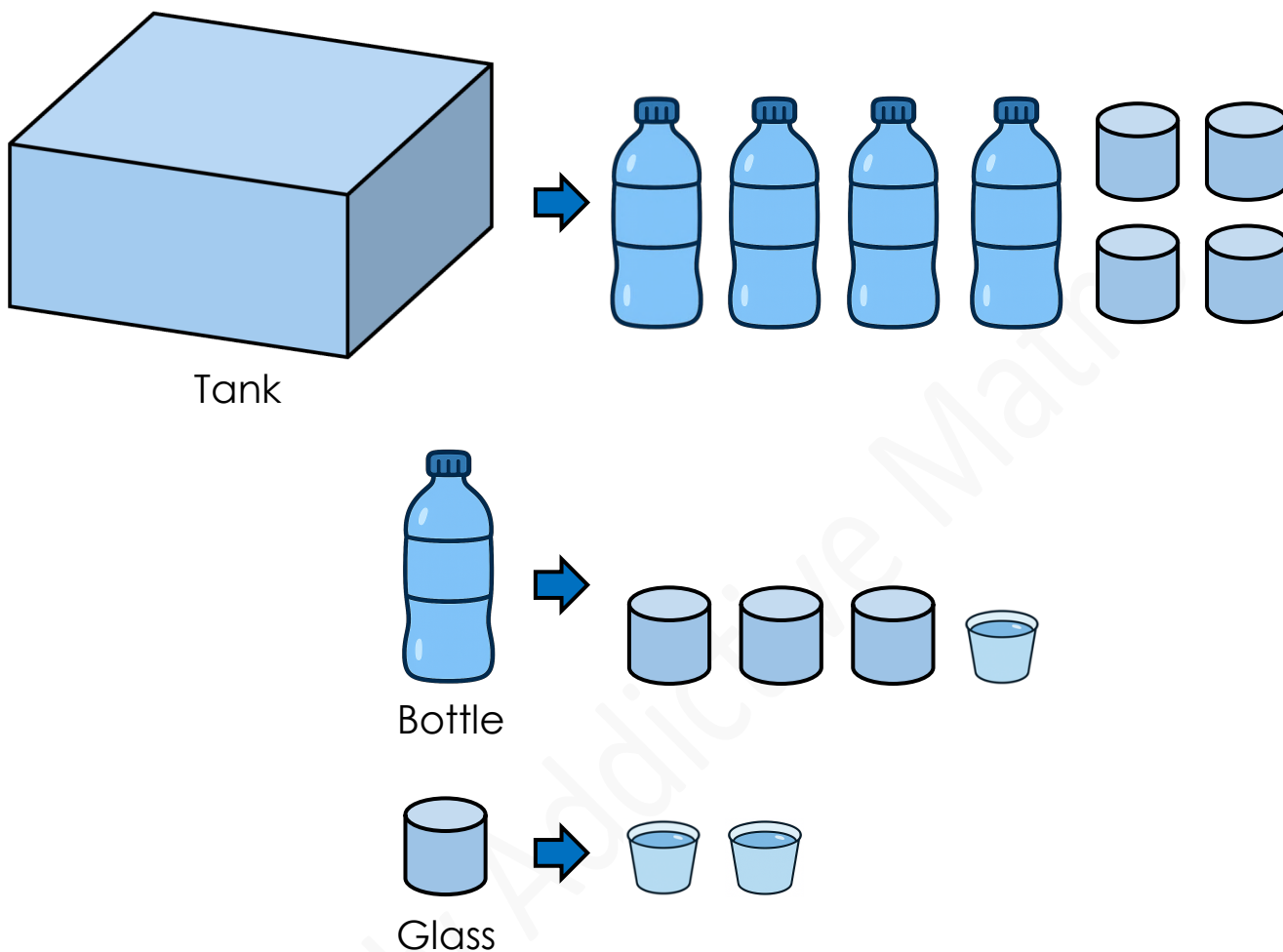
13. In the multiplication below, each letter stands for a different digit. Find the value of $A + B + C + D$.

$$\begin{array}{r} A B 7 \\ \times C \\ \hline D 8 8 \end{array}$$

- (A) 18 (B) 19 (C) 20
(D) 21 (E) None of the above
14. Ben and Tom were playing a game with 150 tokens.
In the 1st round, Ben lost 28 tokens to Tom.
In the 2nd round, Tom lost 72 tokens to Ben.
Ben had twice as many tokens as Tom in the end.
How many tokens did Tom have at first?

- (A) 36 (B) 56 (C) 72
(D) 75 (E) None of the above

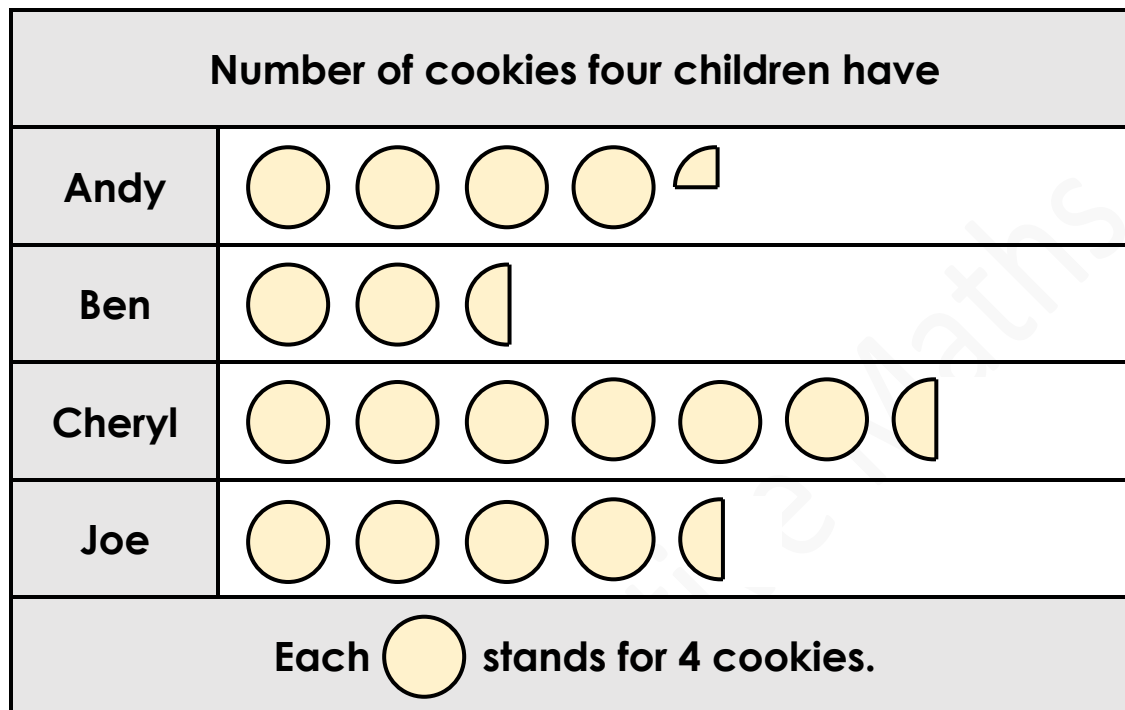
15. Study the diagram below.



How many glasses of water are needed to fill the tank completely?

- (A) 16 (B) 17 (C) 18
(D) 19 (E) None of the above

16. The picture graph shows the number of cookies four children have.



How many cookies do the four children have altogether?

- (A) 71 (B) 72 (C) 73
(D) 74 (E) None of the above

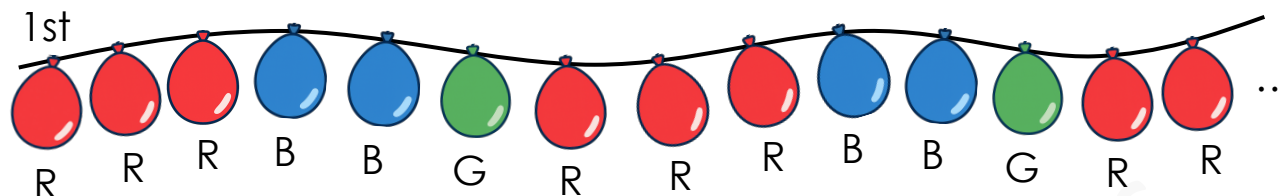
17. The diagram below shows a promotion for cupcakes at ABC Bakery.



Leon and Kelly buy an equal number of cupcakes. Kelly is a member while Leon is not. So, Kelly spends \$7 less on the cupcakes than Leon. What is the possible number of cupcakes Leon buys?

- (A) 20 (B) 25 (C) 33
(D) 35 (E) None of the above

18. Helen ties some red (R), blue (B) and green (G) balloons on a string in the pattern shown below.



She ties 21 red balloons on the string. What is the possible number of balloons she ties altogether?

- (A) 39 (B) 43 (C) 44
(D) 45 (E) None of the above
19. When Amy was Ken's age, Ken was only 6 years old. By the time Ken reaches Amy's current age, Amy will be 48 years old. How old is Amy currently?

- (A) 27 years old (B) 33 years old (C) 34 years old
(D) 36 years old (E) None of the above

20. Jason has \$100. He wants to buy three different items shown below.



T-shirt
\$29.90



Pair of jeans
\$56.90



Bag
\$45.80



Cap
\$28.40



Wallet
\$43.50



Pair of shoes
\$35.30



Belt
\$24.70

How many different ways can he buy the three items?

(A) 4

(B) 6

(C) 8

(D) 10

(E) None of the above



Section B (30 marks)

Questions 21 to 25 carry 6 marks each.

21. In the addition below, each letter stands for a different digit.

$$\begin{array}{rcccccc} & & A & B & C & D & \\ + & & & E & F & G & \\ \hline 1 & 0 & 0 & 0 & 0 & & \end{array}$$

What is the smallest number EFG can stand for?

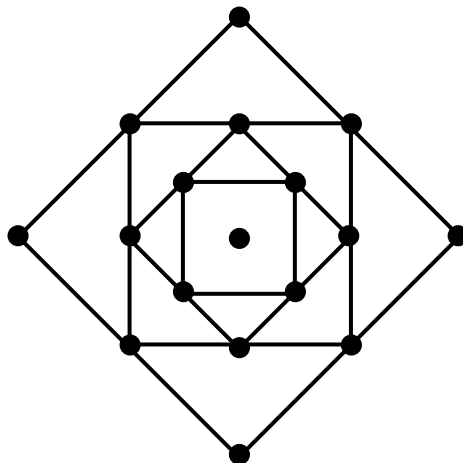


22. Gopal thinks of two numbers, A and B. The sum of A and B is 45. When A is multiplied by 6 and B is multiplied by 4, the sum of these two products is 236. Find the difference between A and B.



23. John thinks of three consecutive numbers. Their product is 336. Find the sum of the three numbers.

24. Mary uses squares to form the figure below. The figure shows a number pattern.



There is 1 dot in the middle. There are 4 dots on the 1st square. There are 8 dots each on the 2nd, 3rd and 4th squares. Mary continues until she forms the 20th square. How many dots are there in total?



25. There were 40 pupils lined up in a row. The pupils took turns to call out the numbers 1, 2, 3, 1, 2, 3 ... from the left.

Then, the pupils took turns to call out the numbers 1, 2, 1, 2, 1, 2, ... from the right.

How many pupils called out the number '1' twice?

END OF PAPER

Seriously Addictive Maths

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