SASMO 2025 MOCK TESTS
Grade: 6
Time allowed: 90 minutes
TEST 3

INSTRUCTIONS. Please read all the instructions below carefully.

a) **DO NOT OPEN** the contest booklet until the Proctor has given permission to start.

b) **TIME: 1 hour 30 minutes.**

c) There are 25 questions.

- **Section A:** Questions 1 to 15 score 2 points each, no points are deducted for an unanswered question and 1 point is deducted for the wrong answer.
- **Section B:** Questions 16 to 25 score 4 points each, no points are deducted for an unanswered or wrong answer.

d) Shade your answers neatly using a **2B lead pencil** in the Answer Entry Sheet.

e) **PROCTORING:** No one may help any student in any way during the contest.

f) No electronic devices capable of storing and displaying visual information are allowed during the course of the exam.

g) Strictly **No Calculators** are allowed into the exam.

h) All students must fill and shade their **Name, School and Index Number** in the Answer Entry Sheet and Contest booklet.

i) **MINIMUM TIME:** Students must stay in the exam hall for at least 1 hour.

j) **No exam papers and written notes can be taken out by any contestant.**

GOOD LUCK!

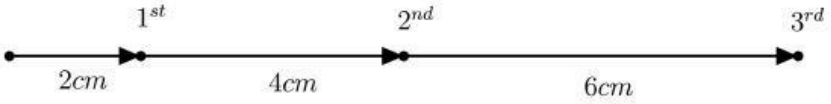
LIVEWORKSHEETS

A SECTION A (CORRECT ANSWER = 2 MARKS; NO ANSWER = 0; INCORRECT ANSWER = MINUS 1 MARKS)

Question 1. Which one of the following is the smallest?

(A) $\frac{3+4}{6+8}$. (B) $\frac{34}{68}$. (C) $\frac{4-3}{8-6}$. (D) $\frac{3\times 4}{6\times 8}$. (E) $\frac{3\div 8}{6\div 4}$.

Question 2. Shreya is placing 10 gemstones on her table such that the 1st gemstone is 2 cm from point X, the 2nd gemstone is 4 cm from the 1st one, the 3rd gemstone is 6 cm from the 2nd one, and so on. How far is the 10th gemstone from point X?



(A) 18. (B) 20. (C) 22.
(D) 24. (E) None of the above.

Question 3. In the sequence below, some numbers are missing. The sum of any three adjacent numbers is 37. What is the value of A?

$$A, 11, _, _, _, _, _, _, 13, \ldots$$

(A) 11. (B) 13. (C) 24.
(D) 37. (E) None of the above.

Question 4. The table below shows the number of gold coins won in a series of rounds in a computer game:

Round	Number of gold coins
1	10
2	25
3	50
4	100
5	190

Which transition round has the least percentage increase?

(A) Round 1 to 2. (B) Round 2 to 3. (C) Round 3 to 4.
(D) Round 4 to 5. (E) None of the above.

Question 5. Whole numbers starting from 1 are arranged in the following way:

1					Row 1
2	3				Row 2
4	5	6			Row 3
7	8	9	10		Row 4
11	12	13	14	15	Row 5
...					

Which row contains the number 209?

(A) 19. (B) 20. (C) 21.
(D) 22. (E) None of the above.

LIVEWORKSHEETS

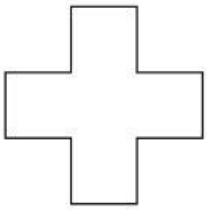
Question 6. Cynthia just bought her new luggage bag. She is creating a 3-digit passcode to lock her new luggage bag. If she wants exactly two sixes in the passcode, what is the total number of possible passcodes she can create? (Examples are 663 and 066).

(A) 24. (B) 27. (C) 30.
(D) 33. (E) None of the above.

Question 7. Dwayne is playing a roulette wheel with 10 numbers (from 1 to 10) in the carnival. He can bet only one of the choices below. If his bet is correct, then he will win a teddy bear. Which of the following would you suggest to Dwayne to maximize his chances of winning the teddy bear?

(A) Numbers bigger than 7. (B) Number 9 and 10. (C) Numbers $1, 2, 3, 4$.
(D) Even numbers. (E) Odd numbers bigger than 2.

Question 8. Five *different* integers are selected from 1 to 6 and one integer is placed into each of the five squares shown.



The integers are placed so that the sum of the three integers in the vertical column is 7, and the sum of the three integers in the horizontal row is 11. Which integer does not appear in any square?

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

Question 9. Thursdays of a certain month have the most number of dates which are prime numbers. A prime number is a whole number with exactly two factors. For example, 7 is a prime number since its factors are only 1 and 7. Which day of the week is 14th of this month?

(A) Monday. (B) Tuesday. (C) Wednesday.
(D) Thursday. (E) None of the above.

Question 10. Given that

$$\frac{40}{7} = T + \cfrac{1}{1 + \cfrac{1}{V + \cfrac{1}{V}}}.$$

What is the value of $T + V$?

(A) 6. (B) 7. (C) 8.
(D) 9. (E) None of the above.

Question 11. The 3-digit number $8N5$ is divisible by 45. The sum of the 3-digit numbers $5M7$ and 278 is equal to $8N5$. Find the value of $M + N$.

(A) 12. (B) 15. (C) 18.
(D) 21. (E) None of the above.

Question 12. The sum of the smallest and the second smallest factors of a whole number is 8, and the sum of its two largest factors is 392. Find the whole number.

(A) 311. (B) 343. (C) 392.
(D) 419. (E) None of the above.

Question 13. How many times do the hour and minute hand form 60° from 12pm to 11pm?

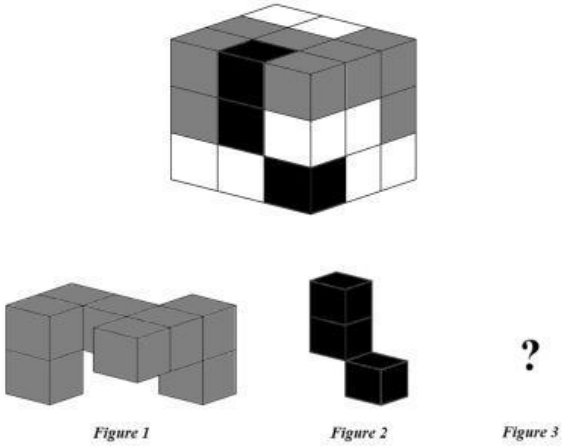
(A) 18. (B) 22. (C) 23.
(D) 24. (E) None of the above.

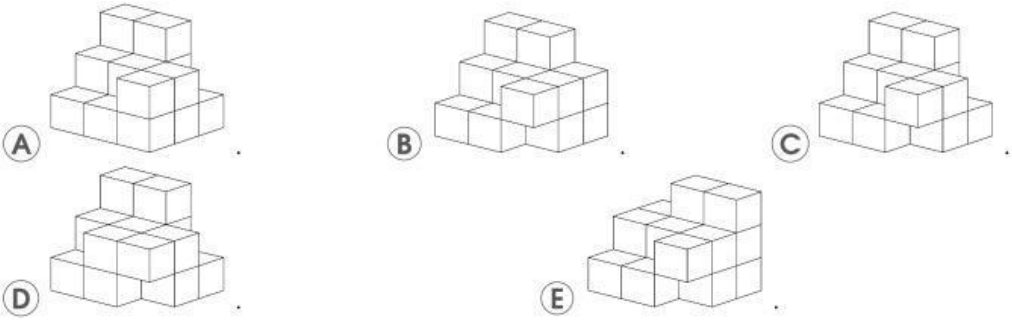
LIVEWORKSHEETS

Question 14. Goofy started running at 12 m/s (meters per second) at 4 : 00 pm. His dog, Pluto, started following him at 4 : 03 pm and runs at 18 m/s. At what time would Pluto catch up to Goofy?

(A) 4 : 06. (B) 4 : 09. (C) 4 : 18.
(D) 5 : 06. (E) None of the above.

Question 15. The cube below was split into 3 figures: Figure 1, Figure 2 and Figure 3. Find the missing Figure 3.





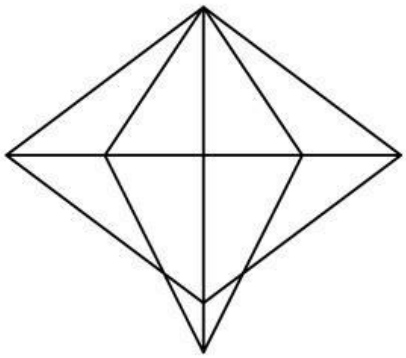
B SECTION B: CORRECT ANSWER = 4 MARKS; INCORRECT OR NO ANSWER = 0

Question 16. The sum of a 4-digit number and three of its digits is 2018. Find this 4-digit number.

Question 17. Find the value of ?.

$$1, 9, 32, 114, 476, ?$$

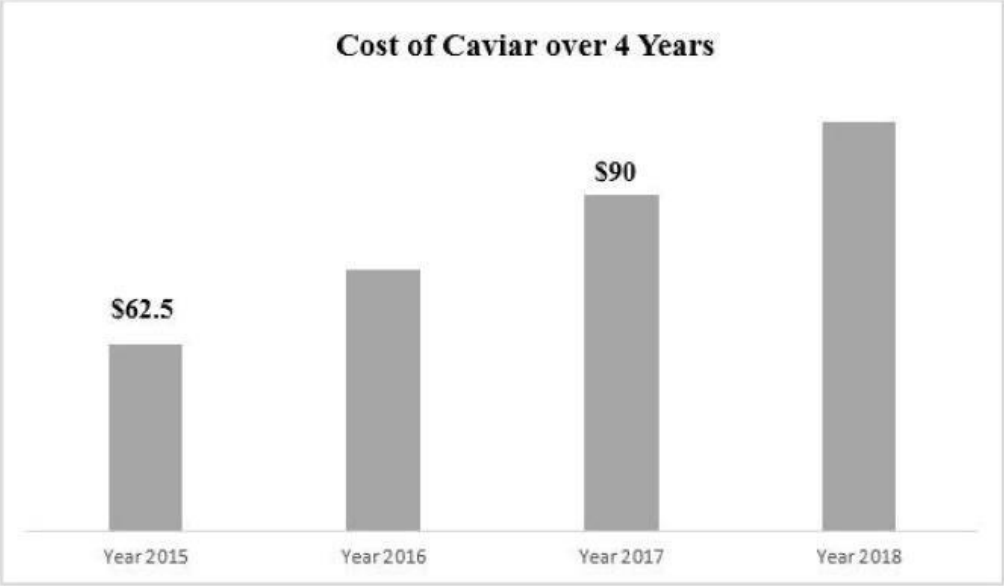
Question 18. How many triangles are there in the figure below?



LIVEWORKSHEETS

Question 19. In a factory, cans of orange soda are sold in boxes of 9. The price of 1 box is \$7. One can of orange soda is given free for every 2 boxes purchased. Five empty cans of orange soda can be exchanged for 1 can of orange soda for free. What is the largest number of cans of orange soda that can be obtained with \$35?

Question 20. The following bar chart shows the cost of Caviar over a period of 4 years. The percentage increase in cost remains the same every following year. Find the cost of the Caviar in 2018.



Question 21. 5 photographers can take 60 pictures in 2 minutes. Assuming each photographer takes pictures at the same rate, how many photographers are needed to take 72 pictures in 1 minute?

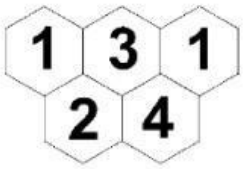
Question 22. Marvin, Patrick and Sid each own comic books. Marvin's number of comic books is 10 less than the average number of comic books of the three of them. The number of Patrick's comic books is 12 more than the average number of comic books of the three of them. If the number of comic books of Sid is 19, how many comic books does Patrick have?

Question 23. In the following, all the different letters stand for different digits.

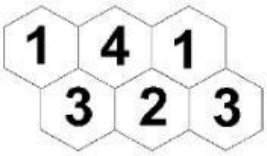
$$\begin{array}{cccc} & A & H & A \\ \times & & & 5 \\ \hline U & S & H & A \end{array}$$

Find the 4-digit number $USHA$.

Question 24. As shown in Examples 1 and 2, all the cells (6-sided shapes) are filled with numbers 1, 2, 3, and so on. Each number in a cell is the smallest possible number which does not appear in any of the neighbouring cells.



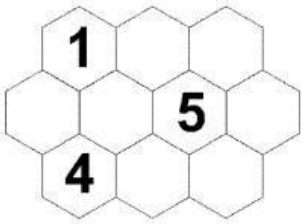
Example 1
(Ví dụ 1)



Example 2
(Ví dụ 2)

LIVEWORKSHEETS

Fill in each empty cell in the diagram below according to the rules above.



Find the sum of all the numbers in the 10 cells.

Question 25. A standing desk has 31 height settings, numbered from the lowest height, 1, to the highest height, 31. Since the desk is not working properly, when the up button is pressed, the desk goes up 6 settings at a time if possible, otherwise it does not move. When the down button is pressed, the desk goes down 4 settings at a time if possible, otherwise it does not move. If the desk starts at setting number 1, how many of the 31 settings will the desk be able to stop at?

THE END

LIVEWORKSHEETS