ASMOPSS THAILAND 2026

Asian Science & Mathematics Olympiad for Primary and Secondary Schools (Thailand)

Mathematics Primary G.6

Sunday, August 9, 2026

8:30 – 10:00 a.m. (90 minutes)

$$\sum x^2$$

B

Instructions

1. This exam includes 25 questions, with a total score of 100.
2. Fill out your name, grade, school, test center, room, seat number, and identification number either in pen or in pencil.
3. Use a 2B black pencil or darker one to fill in the circles corresponding to your answer written at the top.
4. Use a pen or a pencil to write your answer in the box at the top of the column.
5. If you want to change an answer that you have already marked, use a clean eraser to erase the incorrect answer and mark the new one.
6. It should be noted that figures in the exam are not drawn to scale.
7. Dictionaries, calculators, and electronic devices are not permitted in the test room.
8. Note taking can be done on the test paper only, with no extra sheet provided.
9. If the answer is a number that is more than 3-digit number or decimal number, please answer as the following pattern:
   - 9.1 If the answer is more than 3-digit number, then answer the last 3 digits.
   - 9.2 If the answer is decimal number, then round the answer to the nearest integer.
10. Do not write anything or make any symbols in the black barcode area along the edge of the paper except the answers on the answer sheet. Make sure the answersheet is not crumpled.
11. Submit the answer sheet to the proctor when the time is up.
12. Cheating in the exam may cause serious consequences including disqualification from receiving any award or joining the second round of the test held by ASMOPSS THAILAND.

Should any disagreement arise, the judgment of the panel is deemed final.

Announcement of the results via https://asmopssthailand.com on September 16, 2026

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Contact US

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1. Find the value of $784 \times 999 - 31,316 \times 25$. (2.5 points)

2. From the pattern 1 , 3 , 7 , 15 , 31 ,... what is the 9^{th} number? (2.5 points)

3. Given the numbers (1) , (2) , (3), and (4) represent the following fractions.

   (1) $\frac{23}{25}$ (2) $\frac{7}{10}$ (3) $\frac{12}{15}$ (4) $\frac{47}{50}$

   Arrange the first 3 numbers representing the given fractions from largest to smallest. For example: 123. (2.5 points)

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4. Find the largest three-digit natural number that leaves a remainder of 8 when divided by 9, 12, and 15. (2.5 points)

5. Martin owns 684 square meters of land. He divides the entire land into two parts for growing vegetables and digging a pond. If the ratio of the area for growing vegetables to the area for the pond is 5:1, how many square meters of land did Martin use for growing vegetables? (2.5 points)

6. If $A \otimes B = \left(\frac{A+B}{2}\right) \times \left(\frac{A-B}{2}\right)$, then what is the value of $31 \otimes 15$?

(2.5 points)

7. If a regular polygon has a total of 27 diagonals, find the measure of each interior angle of this polygon. (2.5 points)

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8. A rope has a total length of 35.25 meters. It is cut into 6 pieces of equal length. If there is a remaining piece of rope measuring 45 centimeters left over, find the length of each cut piece in centimeters. (2.5 points)

9. If $\dfrac{2024-2025\times 2026+2026\times 2027+2028}{2026}=A$, then what is the value of $\left(5+A\right)\times 7+A$? (4.5 points)

10. Kevin has two types of banknotes: 2-dollar bills and 5-dollar bills, totaling 72 bills. The total value of the money is 219 dollars. If Kevin spends 12 of the 2-dollar bills, how many 2-dollar bills will he have left? (4.5 points)

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11. The mother is currently three times as old as her child, and she is 4 years younger than the father. In 12 years, the child's age will be half of the mother's age. How old is the father now? (4.5 points)

12. Martin and Fibo are playing a number guessing game. Fibo asks Martin to think of an integer in his mind. Then, Fibo tries to find the answer by asking questions and receiving the answers as shown in the following conversation:

Fibo: Martin, if you add 8 to the number you thought of, then multiply by 2, then subtract 5, you get 27, right?

Martin: No, but it's very close, as the result is only 2 off.

Fibo: If you subtract 1 from the same number you thought of, then divide by 2, then add 8, you get 12, right?

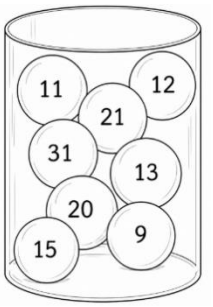
Martin: No, but it's very close, as the result is only 1 off.

Fibo: Now I know what number you had in your mind.

What was the integer that Martin had in his mind? (4.5 points)

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13. A glass jar contains 8 balls, each labeled with a different number as shown in the figure. Fibo randomly selects two balls at a time, without replacing them, and then multiplies the numbers on the two balls together, recording the result as follows:



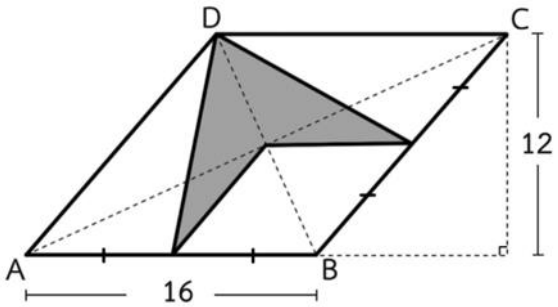
- 1st Random Draw: The product of the numbers on the two balls is 180.
- 2nd Random Draw: The product of the numbers on the two balls is 189.

If the numbers on the remaining balls in the glass jar are used to fill in the blanks in the expression below:

$$(____ - ____) \times (____ + ____) = \ ?$$

What is the maximum possible value of the result? (4.5 points)

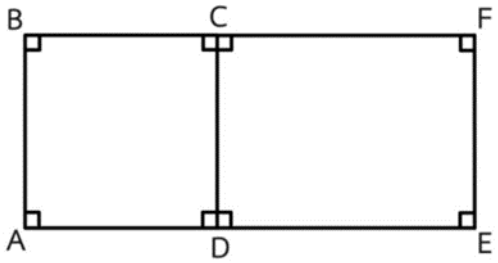
14. Given that $ABCD$ is a rhombus with a base length of 16 units and a height of 12 units, as shown in the figure.



Find the area of shaded region. (4.5 points)

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15. Let $ABCD$ be a square and $CDEF$ be a rectangle, where the side lengths of both shapes are positive integers. When these two shapes are placed side-by-side, they form a rectangle $ABFE$, as shown in the figure.



If the rectangle $ABFE$ has an area of 60 square centimeters and a perimeter of 34 centimeters, find how many centimeters longer side CF is than side AB.

(6 points)

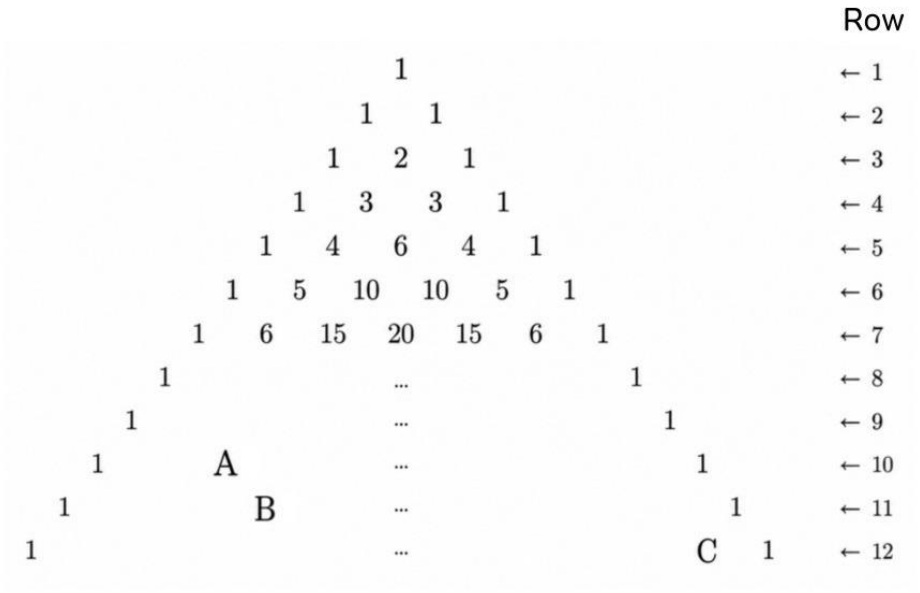
16. Kathy, Fibo, Mario, and Martin are all standing in a row, such that:

Fibo is standing at the front of the line, and 59 people are standing behind him.
Only 1 person is standing behind Martin.
37 people are standing behind Mario.
46 people are standing in front of Kathy.
Based on the information above, how many people are standing in the row between Mario and Kathy? (6 points)

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17. Pascal's Triangle is a triangular arrangement of numbers as shown in the figure, where

    - The leftmost and rightmost numbers are always 1.
    - The middle number is the sum of the two numbers above.



If A is the 3rd number from the left in Row 10 of Pascal's Triangle.

If B is the 4th number from the left in Row 11 of Pascal's Triangle.

If C is the 11th number from the left in Row 12 of Pascal's Triangle.

Find the result of $A \times C + B$. (6 points)

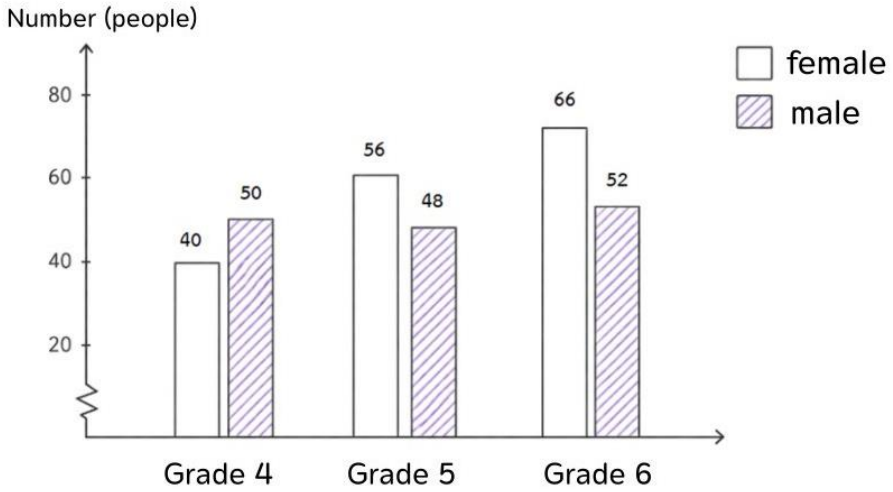
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18. Marwin and Tigger are jogging around a circular park with a radius of 70 meters. They both started from the same point at 17:15. After 10 minutes, Marwin had completed half a lap around the park, while Tigger was trailing 20 meters behind Marwin. Assuming both Marwin and Tigger run at constant speeds, how many minutes will pass before they arrive back at the starting point together for the first time? (6 points)

19. How many three-digit integers between 200 and 800 that satisfy all of the following conditions?
    - The number is divisible by 4.
    - The number is not divisible by 5.
    - All three digits are distinct. (6 points)

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20. Consider the bar chart showing the number of students in grades 4-6 at ASMOPSS Thailand School



and the table showing the results of the survey on students' interest in participating in the math camp for grades 4-6.

Data	male		female	
	Go	Did not go	Go	Did not go
Grade 4	48	A	B	5
Grade 5	C	D	52	E
Grade 6	51	F	63	3
total	144	G	H	12

If A, B, C, D, E, F, G and H represent the numbers in the table,

find the value of $\dfrac{[A\times(B+C)-(D+F+G)]\times E}{H}$. (6 points)

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21. If $\square + \square + \triangle = 74$

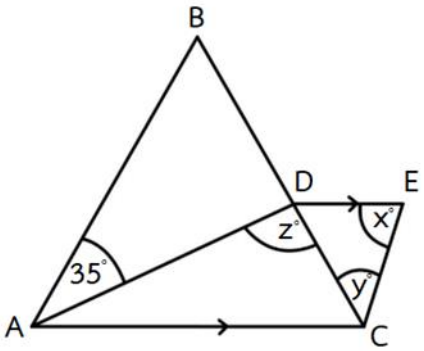
$\triangle + \triangle - \square = 33$,

then what is the value of $\square \times \triangle + \triangle$? (2.5 points)

22. If 23% of A is 552, then what is the value of 31% of A? (4.5 points)

23. Let ABC be an equilateral triangle such that $\overline{DE} \parallel \overline{AC}$ and $BAD = 35^\circ$. If x, y, and z are the angles as shown in the figure, then find the value of $x + y - z$.

(4.5 points)



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24. How many natural numbers from 100 to 500 have a sum of digits that is an odd number? (2.5 points)

25. Martin has 12 candies of the same type. He wants to keep 3 for himself and share the remaining candies with 3 friends, provided that each friend receives at least 2 candies. Find the total number of different ways Martin can divide the candies among his 3 friends. (4.5 points)

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GRADE 6 ANSWER KEY

No.	Answer	No.	Answer
1	316	**14**	48
2	511	**15**	2
3	413	**16**	23
4	908	**17**	516
5	570	**18**	220
6	184	**19**	83
7	140	**20**	4
8	580	**21**	672
9	67	**22**	744
10	35	**23**	25
11	40	**24**	201
12	7	**25**	10
13	660		

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