VIETNAM INTERNATIONAL APPLIED MATHEMATICS COMPETITION

MOCK TEST LEVEL 3

UPPER PRIMARY

(Grade 5 - 6)

I. MULTIPLE CHOICE QUESTIONS

Question 1. An's family, consisting of 5 members, is going to an amusement park. The ticket price for adults (height over 1.3 meters) is 150,000 VND per ticket, and the ticket price for children (height under 1.3 meters) is 100,000 VND per ticket. The heights of An's family members are as follows: Father (1.8 m), Mother (1.65 m), An (1.4 m), Binh (1.2 m), and Mai (1.1 m). How much money in total does An's family need to pay for the tickets?

A. 600,000 VND B. 700,000 VND C. 650,000 VND D. 550,000 VND

Question 2. Van and Tu work part-time during the summer. Each day, Van works for 4 hours and Tu works for 6 hours. Together, they earn a total of 500,000 VND in one day. It is known that both of them earn the same amount of money per hour. How much money does each of them earn in one day?

A. Van: 200,000 VND, Tu: 300,000 VND B. Van: 250,000 VND, Tu: 250,000 VND

C. Van: 180,000 VND, Tu: 320,000 VND D. Van: 300,000 VND, Tu: 200,000 VND

Question 3. In a long queue to enter the museum, An is standing 15th from the front. Binh is standing 20th from the end of the line. It is known that there are 5 people between An and Binh, and An is ahead of Binh in the line. How many people are there in total in the line?

A. 41 people B. 39 people C. 42 people D. 40 people

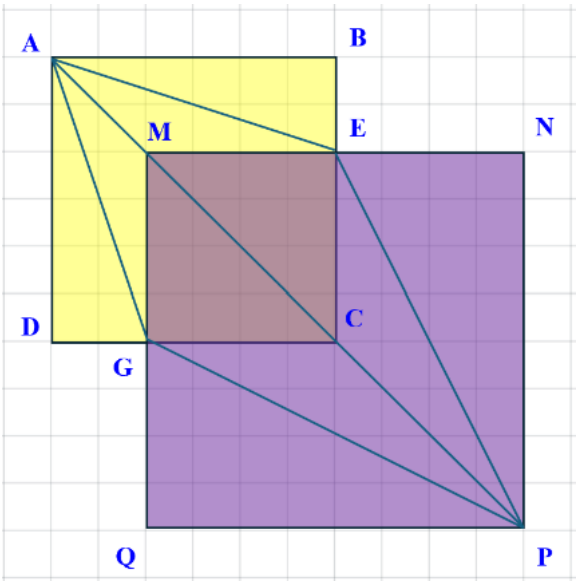
Question 4. Mr. Minh saws a piece of wood into 5 equal parts in 12 minutes. If Mr. Minh saws 3 similar pieces of wood, cutting each piece into 8 equal parts, how many minutes will it take him in total? (Knowing that the time for each cut is the same.)

A. 63 minutes B. 72 minutes C. 84 minutes D. 96 minutes

Question 5. In a box, there are 12 marbles, consisting of: 5 red marbles, 3 blue marbles, 2 yellow marbles, and 2 green marbles. An, with his eyes closed, randomly picks one marble at a time. How many marbles does An need to pick to be certain of getting at least one red marble?

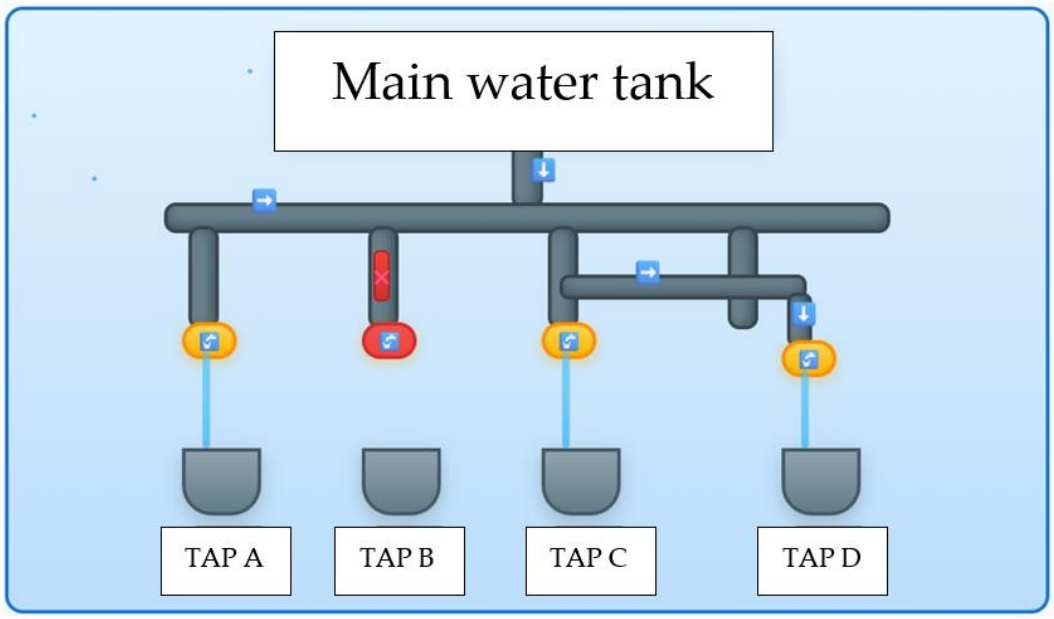
A. 5 marbles B. 7 marbles C. 10 marbles D. 8 marbles

Question 6. Minh makes the frame of a kite by joining two squares together (as shown in the figure). Square *ABCD* has a side length of 6 dm, and square *MNPQ* has a side length of 8 dm. On the body of the kite, Minh decorates the shape *AEPG* with a different color. Calculate the area of shape *AEPG*.



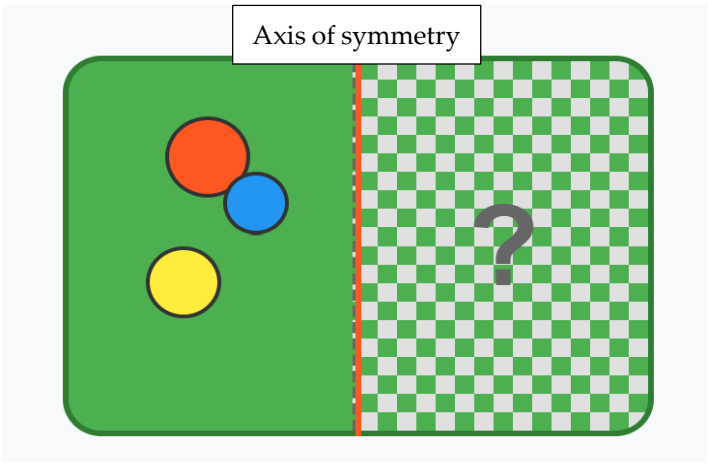
A. 40 dm^2 B. 60 dm^2 C. 20 dm^2 D. 80 dm^2

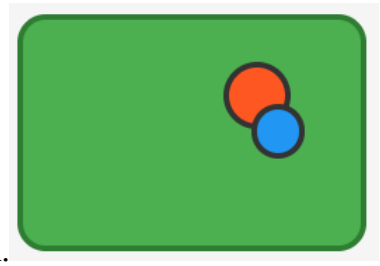
Question 7. When all the taps are turned on, which tap will release water first?



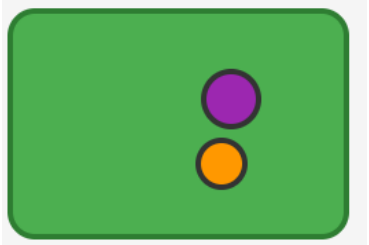
A. TapA B. Tap B C. Tap C D. Tap D

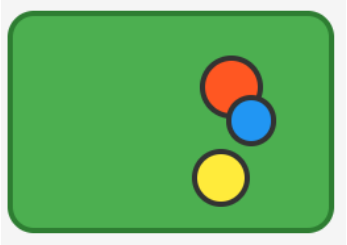
Question 8. Look at the picture below. The right side has been erased. Find the missing part to complete a perfectly symmetrical figure across the vertical axis (the red line). Which circles need to be on the right side to create the symmetrical figure?



A. 

B. 

C. 

D. 

Question 9. April 20, 2025, is Nam's 11th birthday, and that day falls on a Sunday. On which day of the week will Nam's 20th birthday fall?

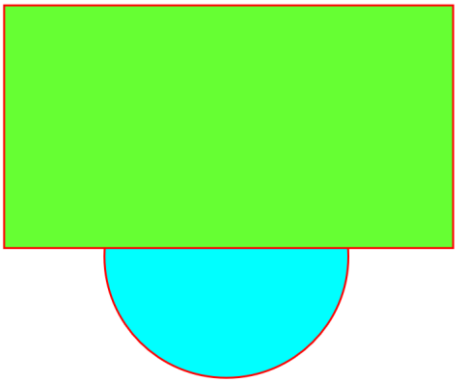
A. Monday B. Tuesday C. Wednesday D. Thursday

Question 10. Mr. Nam, the director of a company in Hanoi (Vietnam, time zone GMT+7), has a business trip to London (UK, time zone GMT+0). His schedule is as follows: The flight departs from Noi Bai Airport, Hanoi at 6:00 a.m. on Monday (Hanoi time). The total flight duration is 14 hours. Mr. Nam has an important meeting in London at 10:00 a.m. on Tuesday (London time). At what time does Mr. Nam's meeting start in London time?

A. 14 o'clock B. 15 o'clock C. 16 o'clock D. 17 o'clock

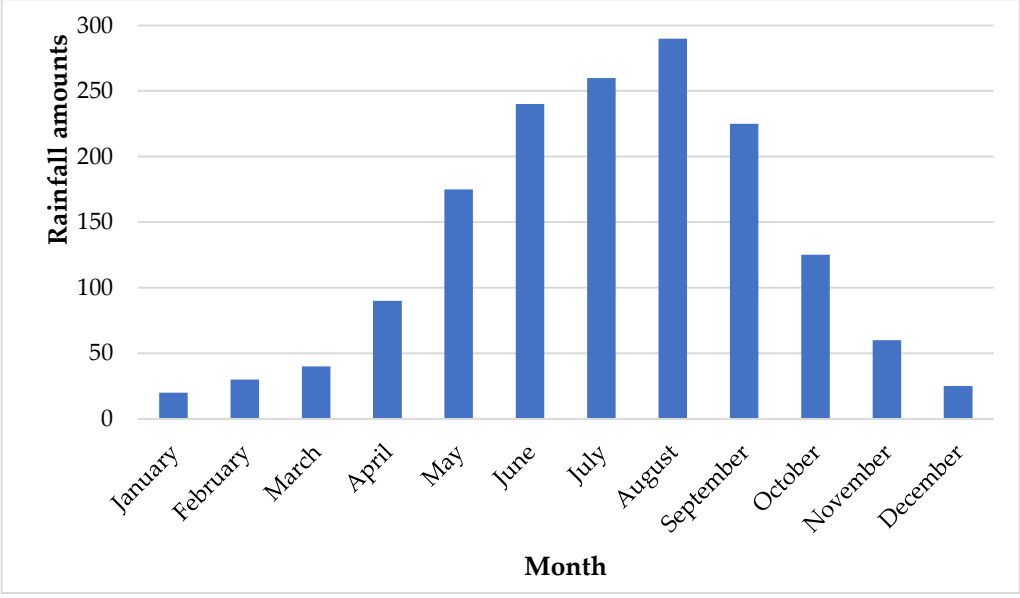
Question 11. Mr. Ba has a piece of land (as shown in the figure).

The rectangular part of the land is used for planting trees, while the semicircular part is used as a water reservoir for irrigation. It is known that the perimeter of the rectangular planting area is 84 meters, and its width is half of its length. The diameter of the water reservoir is equal to the width of the planting area. The total area of Mr. Ba's piece of land is:



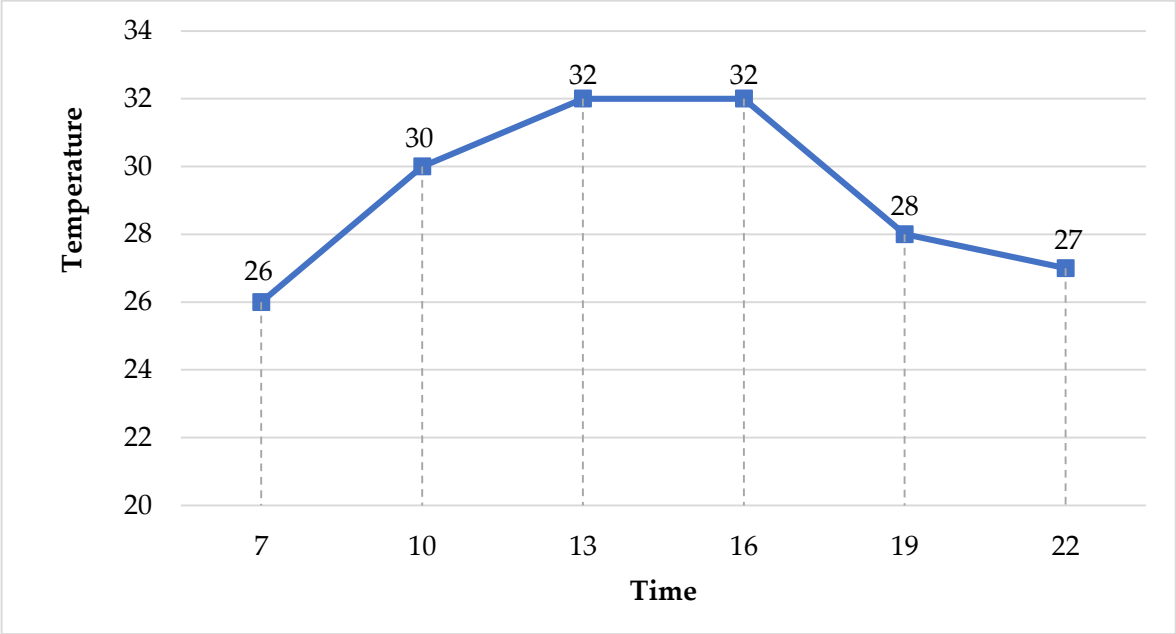
A. 468,93 m^2 B. 392 m^2 C. 545,86 m^2 D. 315,07 m^2

Question 12. The chart below shows the monthly rainfall in Hanoi in 2024. How many months had rainfall less than 150 mm?



A. 9 B. 7 C. 3 D. 5

Question 13. The line graph below shows the temperatures measured at different times during the day. What is the average temperature for that day, rounded to the nearest whole number (degree Celsius)?



A. 26° C B. 28°C C. 30°C D. 32°C

Question 14. Hoang, Nam, Mai, and Dung are participating in a competition. They make the following statements: Hoang says: "Nam did not come last." Nam says: "Mai scored higher than Dung." Mai says: "Dung's score is 10 points lower than Hoang's." Dung says: "Nam came first." If only one person is lying, who is the one lying?

A. Hoang B. Mai C. Dung D. Nam

Question 15. A test consists of 20 questions. Each correct answer earns 10 points, and each incorrect answer loses 5 points. A student takes the test and gets a total score of 140. Calculate how many questions the student answered correctly and how many questions the student answered incorrectly.

A. True 15, False 5 B. True 14, False 6 C. True 16, False 4 D. True 17, False 3

II. SHORT ANSWER QUESTIONS

Question 16. Mai deposits 5 million VND into a bank account with a monthly simple interest rate of 0.6%. After one year, Mai withdraws both the principal and interest to buy an electric bicycle priced at 5,600,000 VND. Does Mai have enough money, or how much more or less does she have?

Question 17. A book set costs 324,000 VND. During a holiday sale, there is a 25% discount. If Ha has 250,000 VND, does she have enough money to buy the book set? If not, how much more does she need?

Question 18. Nam has 4 cards with different shapes: a square, a circle, a triangle, and a rhombus. The cards are kept in identical bags. If in each turn Nam selects 2 bags, what is the probability of getting the square card and the circle card in one turn?

Question 19. A bag of candies contains 5 red candies, 4 green candies, and 6 yellow candies. What is the minimum number of candies one must pick (without looking) to be certain of getting at least 3 candies of the same color?

Question 20. Two ships depart from ports A and B, which are 96 km apart. One ship travels from A at a speed of 12 km/h, and the other travels from B at a speed of 18 km/h. How long will it take for the two ships to meet?

Question 21. In area X, the rainfall for three months is: 120 mm, 150 mm, and 90 mm. In area Y, the rainfall for three months is: 130 mm, 140 mm, and 100 mm. Which area has the higher average rainfall, and by how many millimeters?

Question 22. A cube has a side length of 6 cm. The cost of painting each square centimeter is 3,000 VND. How much will it cost to paint all six faces of the cube?

Question 23. A tower consists of 8 levels, where the number of bricks on each level follows the sequence of odd numbers: 1, 3, 5, 7, etc. What is the total number of bricks needed to build the tower?

Question 24. A tournament has 4 teams playing in a single round-robin format (each pair plays each other once). The total points of all teams are 18 points. How many matches ended in a draw?

Question 25. Consider the following algorithm: Start with $S = 1$. For each integer i from 2 to 6, multiply S by i. Finally, print S. What is the final value printed for S?