AMO G5. TEST 1

MULTIPLE-CHOICE QUESTION

Question 1. How many dots are there in the figure?

(A) 71 (B) 62 (C) 58 (D) 56 (E) None of the above

Question 2. The following table shows the scores of Tiffany, Ursula, Vincent and Warren in the "Mathcraft Game".

Player	Round 1	Round 2	Round 3	Round 4
Tiffany	7	56	8	43
Ursula	37	24	36	13
Vincent	27	41	23	21
Warren	27	38	23	27

Who received the highest score?

(A) Tiffany (B) Ursula (C) Vincent

(D) Warren (E) Tiffany and Vincent

Question 3. What is the next number below?

3,5,6,10,9,15,12,20,…

(A) 13 (B) 15 (C) 18 (D) 25 (E) 28

Question 4. Jane plans to go on a holiday from 22 July (first day) to 3 September (last day). How many days is she planning to spend on her holidays?

(A) 43 (B) 44 (C) 45 (D) 46 (E) None of the above

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Question 5. Max cuts a string 8 times so that each resulting string has an equal length of 12 cm. How long is the original string?

(A) 84 (B) 96 (C) 108 (D) 120 (E) 144

Question 6. A teacher wants to equally distribute 67 pieces of candy to 9 students. How many pieces of candy will be left after all students receive the largest possible pieces of candy from their teacher?

(A) 3 (B) 4 (C) 5 (D) 6 (E) None of the above

Question 7. Mary has several boxes. Each box has the same number of coins. If she has a total of 24 coins in 6 boxes, how many coins are there in her 12 boxes altogether?

(A) 36 (B) 32 (C) 24 (D) 22 (E) None of the above

Question 8. Evaluate

$T= (7+11+15+\cdots+1831+1835)-(14+18+\cdots+1822+1826)$

(A) 4136 (B) 4137 (C) 4138 (D) 413 (E) None of the above

Question 9. Tom packs 8 kg of sugar into the same size packets. Each packet contains 900 grams of sugar. How much sugar is left unpacked?

(A) 100 grams (B) 200 grams (C) 300 grams

(D) 400 grams (E) None of the above

Question 10. In the following sequence, the difference between the consecutive terms is a constant. Find the value of c.

$$777,a,b,c,d,832,\ldots$$

(A) 780 (B) 790 (C) 800 (D) 810 (E) None of the above

Question 11. Trees are planted on one side of Liang Street. Two consecutive trees are 8 meters away from each other and trees are planted at the two ends of Liang Street. If there are 21 trees in total, how long is Liang Street?

(A) 152 (B) 160 (C) 168 (D) 176 (E) None of the above

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Question 12. Christine thought of a number. She added 31 of this number and then multiplied the result by 5. Then she subtracted 4 and then divided the result by 8. She got 27 in the end. What was the original number?

(A) 11 (B) 30 (C) 33 (D) 66 (E) None of the above

Question 13. There are 32 pots on all the sides and the corners of a square field. Suppose the pots that are next to each other are all equally spaced. How many pots are placed on each side of the field?

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

Question 14. Find the next fraction in the sequence.

$$\frac{1}{3};\frac{1}{2};\frac{5}{9};\frac{7}{12};\frac{3}{5},$$

(A) $\frac{17}{18}$ (B) $\frac{11}{18}$ (C) $\frac{5}{18}$ (D) $\frac{5}{7}$ (E) None of the above

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Question 15. Josh lives on the 6th floor. He needs to climb 48 steps to move from the 2nd floor to the 4th floor. How many steps does he need to climb from the 1st floor to the 6th floor?

(A) 144 (B) 120 (C) 96 (D) 48 (E) None of the above

SHORT-ANSWER QUESTIONS

Question 16. Calculate the value of

$$T=1+2+3+\cdots+40.$$

Question 17. Find the number represented by $\square$ in:

$10\div9+8\times7\div\square+7-5\times5-3\times2=3.$

Question 18. Michael has \$50 less than Samantha. Samantha has \$100 more than Rob. Rob has \$150 less than Hailey. How many more dollars does Hailey have than Michael?

Question 19. Given $2\circledast3=3+4+5,$

$5\circledast4=4+5+6+7+8+9.$

Find the value of $7\circledast5$.

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Question 20. Given that

$1!=1$, $2!=1\times2$, $3!=1\times2\times3$, $4!=1\times2\times3\times4$.

Find the value of 6!.

Question 21. In a candy shop, the shopkeeper allows the exchange of 3 sweet wrappers for 1 new sweet. Peter has 81 sweets at first. What is the largest possible number of sweets that Peter could have eaten?

Question 22. There are 25 trees planted at equal distances along a straight road. The distance between the first and the eighth trees is 56 meters. What is the distance, in meters, between the first and the last trees?

Question 23. A book has 500 pages numbered 1, 2, 3 and so on. How many times does the digit 1 appear in the page numbers?

Question 24. A train can hold 78 passengers. The train starts out empty and pick up 1 passenger at the first stop, 2 passengers at the second stop, 3 passengers at the third stop, and so forth. Given that no one leaves the train during the trip after how many stops will the train be full?[1]

Question 25. Different letters correspond to different digits in the puzzle below. Given A=6, T=3 and M=9, find the 4-digit number IJMO.

$$\begin{array}{cccccc} & M & A & T & H \\ + & I & J & M & O \\ \hline B & I & N & G & O \end{array}$$

THE END

LIVEWORKSHEETS