Republic of the Philippines
DEPARTMENT OF EDUCATION
National Capital Region
Schools Division Office, Quezon City
Sauyo High School

Name: _____ Date: _____
Section: _____ Score: _____

Second Summative Test (Part B) in Mathematics 8
S.Y. 2022–2023

Multiple Choice: *Choose the letter that corresponds to the correct answer. Write the answer in your notebook.*

1. The process of observing data, recognizing patterns, and making generalizations from observations is called:
   A. Deductive reasoning
   B. Detachment
   C. Inductive reasoning
   D. Syllogism

2. The type of reasoning which makes use of accepted rules of logic and general statements to arrive at a conclusion is called:
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3. Any example that shows a statement is false is called:
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4. Which of the following statements is false when the original conditional statement is false?
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5. Which of the following arguments employs deductive reasoning?
   A. S, M, T, W, T, ____, S. The letter in the blank must be F.
   B. 5,10,15, 20. The next number is 25.
   C. J, F, M, A, M, ____, J. The letter in the blank must be J.
   D. All piano players are musicians. Fred is a piano player. Therefore, Fred is a musician.

6. Use inductive reasoning to find the next two terms of the sequence 1, 3, 9, 27, ____, ____.
   A. 36, 45 B. 36, 63 C. 54, 108 D. 81, 243

7. Supply the conclusion for the given hypothesis: If $\angle 1 \cong \angle 2$, then ____.
   A. $\angle 1$ and $\angle 2$ are complementary.
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   D. $\angle 1$ and $\angle 2$ have the same measure.

8. Any set of ordered pairs is called:
   A. Domain B. Function C. Range D. Relation

9. What do we call the correspondence where one element of the first set is paired with different elements in the second set?
   A. One-to-one B. One-to-many C. Many-to-one D. Many-to-many

10. Which of the following relations is NOT a function?
    A. $\{(3,3),(5,5),(6,6),(7,8)\}$
    B. $\{(2,5),(2,6),(4,5),(4,6)\}$
    C. $\{(-3,-2),(-2,-1),(-1,0),(0,1)\}$
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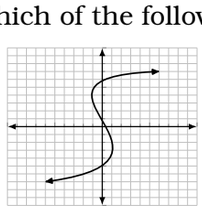
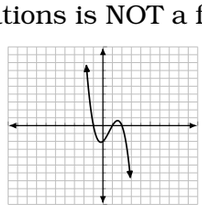
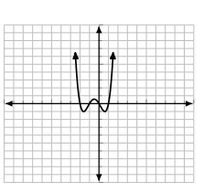
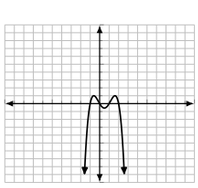
    A. 
    B. 
    C. 
    D. 

12. What kind of pairing is shown in the relation {(0, 2), (0,4), (0, 6), (0, 8), (0, 10)}?
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14. In the graph of $3x - y \geq 5$, the line $3x - y = 5$ is the:

A. Half-plane
B. Plane divider
C. Shade
D. Solution

15. A _____ of a system of linear inequalities is a pair of numbers that satisfies each inequality of the system.

A. Half-plane
B. Plane divider
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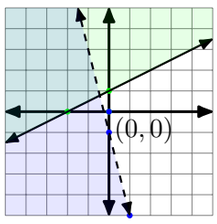
16. Which of the following ordered pairs is a solution to the system of linear inequality $\begin{cases} x - 3y \leq -6 \\ x + y < 5 \end{cases}$?

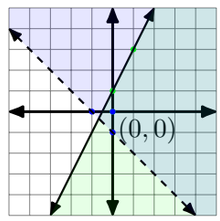
A. $(4, 5)$
B. $(-1, -2)$
C. $(1, -3)$
D. $(-2, 1)$

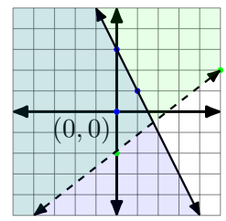
17. Which of the following is NOT a system of linear inequalities in two variables?

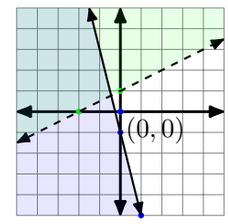
A. $\begin{cases} y < 4 \\ 4x + 3y > 2 \end{cases}$
B. $\begin{cases} 3x + y < 4 \\ 4x + 3y = 2 \end{cases}$
C. $\begin{cases} x \geq 2 \\ 4x + y > -2 \end{cases}$
D. $\begin{cases} \frac{2}{3}x - y < 3 \\ y > 1 \end{cases}$

18. Which of the following graphs shows the solution to the system $\begin{cases} y > \frac{4}{5}x - 2 \\ y \leq -2x + 3 \end{cases}$?

A. 

B. 

C. 

D. 

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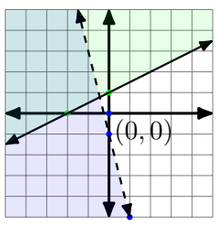
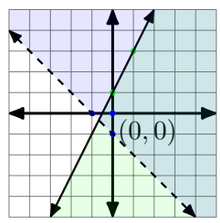
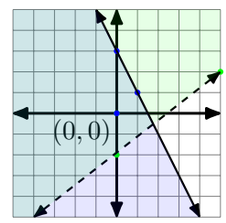
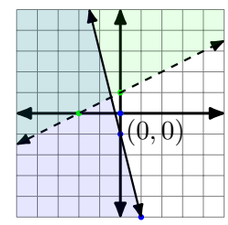
A. 

B. 

C. 

D. 

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23. When writing a two-column proof, which statements are usually stated in the beginning?

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24. Supply the reason for the statement: "If $\overline{AB} \cong \overline{CD}$, then $AB = CD$. "

A. Definition of Betweenness
C. Definition of Congruent Segments
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25. Supply a valid conclusion for the hypothesis: "If $\overline{AB} \perp \overline{AC}$, then _____."

A. $\angle BAC$ is an acute angle
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Answer Key

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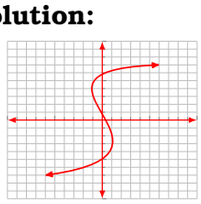
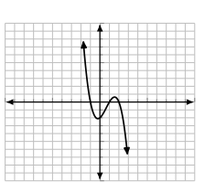
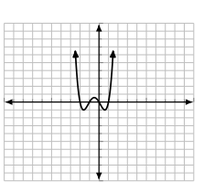
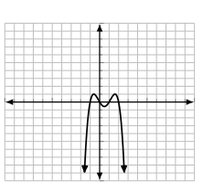
    A.  B.  C.  D. 

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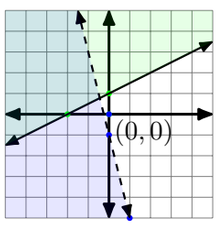
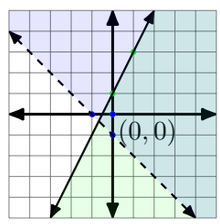
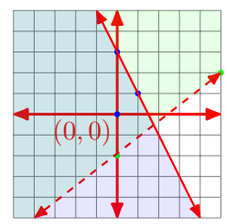
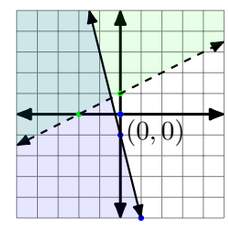
A. 

B. 

C. 

D. 

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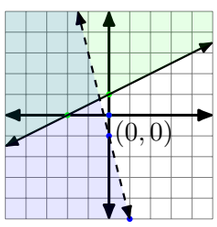
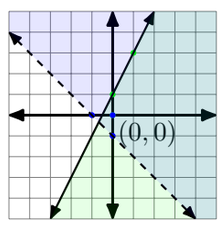
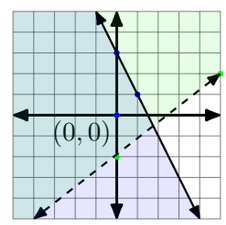
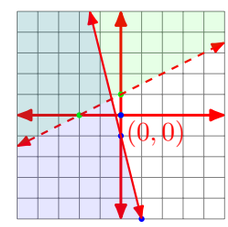
A. 

B. 

C. 

D. 

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