

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 observ	ations
	is called:						

A. Deductive reasoning

C. Inductive reasoning

B. Detachment

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:

A. Deductive reasoning

C. Inductive reasoning

B. Detachment

D. Syllogism

3. Any example that shows a statement is false is called: A. Contra-example

B. Counterexample

C. False example

D. Inverse example

4. Which of the following statements is false when the original conditional statement is false?

A. Conditional

B. Contrapositive

C. Converse

D. If-then statement

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.

C. $\angle 1$ and $\angle 2$ form a linear pair.

B. $\angle 1$ and $\angle 2$ are supplementary.

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. $\{(3,3),(5,5),(6,6),(7,8)\}$

C. $\{(-3, -2), (-2, -1), (-1, 0), (0, 1)\}$

B. $\{(2,5), (2,6), (4,5), (4,6)\}$

D. $\{(-8, -6), (-6, -4), (-4, -2), (-2, 0)\}$

11. Which of the following relations is NOT a function?









12. What kind of pairing is shown in the relation {(0, 2), (0, 4), (0, 6), (0, 8), (0, 10)}?

A. One-to-one correspondence

C. Many-to-one correspondence

B. One-to-many correspondence

D. Many-to-many correspondence

13. What kind of pairing is shown in the relation $\{(3, 2), (4, 2), (5, 1), (6, 1)\}$?

A. One-to-one correspondence

C. Many-to-one correspondence

B. One-to-many correspondence

D. Many-to-many correspondence

14. In the graph of $3x - y \ge 5$, 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

C. Shade

D. Solution

D. (-2,1)

16. Which of the following ordered pairs is a solution to the system of linear inequality

A. (4,5)

B. (-1, -2)

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

A.
$$\begin{cases} y < 4 \\ 4x + 3y > 2 \end{cases}$$

18. Which of the following graphs shows the solution to the system



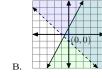






19. Which of the following graphs shows the solution to the system









20. A direct proof can be written in the following forms except:

A. Flowchart form

B. One-column form C. Paragraph form

D. Two-column form

21. The form of logical reasoning in which each statement is organized and backed up by the reasons is called:

A. Contradiction

B. Postulate

C. Proof

D. Theorem

22. Arrange the steps in writing a direct proof:

I. Assume that the hypothesis is true.

II. Show that the conclusion is true.

III. Take the original conditional statement. A. I, II, III

B. II, I, III

C. III, I, II

D. II. III. I

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

A. Conclusion

B. Given

C. Reasons

D. Statement to prove

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

B. Definition of Congruent Angles

D. Definition of Midpoint

25. Supply a valid conclusion for the hypothesis: "If $\overline{AB} \perp \overline{AC}$, then

A. $\angle BAC$ is an acute angle

C. $\angle BAC$ is a right angle

B. $\angle BAC$ is an obtuse angle

D. $\angle BAC$ is a straight angle