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

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

Third Summative Test (Part A) in Mathematics 8
S.Y. 2022–2023

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

1. Statements that are assumed to be true without proof are called:
   A. Definition B. Law C. Postulate D. Theorem
2. The set of points consisting of the union of two rays with a common endpoint is called:
   A. Angle B. Bisector C. Segment D. Vertex
3. A structure that consists of defined and undefined terms, axioms or postulates, and theorems is called:
   A. Direct proof B. Indirect proof C. Law of Syllogism D. Mathematical system
4. Perpendicular lines ____ form right angles.
   A. always B. sometimes C. maybe D. never
5. Any three points not on the same line ____ determine a plane.
   A. always B. sometimes C. maybe D. never
6. A line ____ has endpoints.
   A. always B. sometimes C. maybe D. never
7. Which of the following objects represent a line?
   A. Blackboard B. Ruler C. Scissors D. Tip of a pen
8. Which of the following objects represent a point?
   A. Blackboard B. Ruler C. Scissors D. Tip of a pen
9. The following are characteristics of a line except:
   A. Has infinite depth B. Has infinite length C. Has zero width D. Has zero height
10. The following are characteristics of a plane except:
    A. Has zero thickness B. Has infinite length C. Has infinite width D. Has infinite height
11. Statements that are proved from definitions or using operations and facts that were already known are called:
    A. Axioms B. Postulates C. Proofs D. Theorems
12. What is the meaning of the acronym PIAT?
    A. Parallel Internal Angle Theorem C. Polygon Internal Angle Theorem
    B. Parallel Interior Angle Theorem D. Polygon Interior Angle Theorem
13. Which of the following theorems states that any two right angles are congruent?
    A. Complement Theorem C. Third Angles Theorem
    B. Right Angles Congruency Theorem D. Vertical Angle Theorem
14. Which theorem states that the sum of the degree measures of the angles of a triangle is 180°?
    A. Quadrilateral Interior Angle Theorem C. Supplement Theorem
    B. Supplement Postulate D. Triangle Interior Angle Theorem
15. Provide the reason for this statement: "If $\angle X$ and $\angle Y$ are vertical angles, then $\angle X \cong \angle Y$."
    A. Complement Theorem C. Third Angles Theorem
    B. Right Angles Congruency Theorem D. Vertical Angle Theorem
16. Provide the reason for this statement: "If $m\angle J + m\angle K = 90°$ and $m\angle K + m\angle L = 90°$, then $\angle J \cong \angle L$."
    A. Complement Theorem C. Supplement Postulate
    B. PCAC Postulate D. Supplement Theorem

17. The exterior angle of a triangle can be solved using:

A. Exterior Angles Theorem
C. Supplement Theorem
B. PAIC Theorem
D. Vertical Angle Theorem

18. Which of the following theorems may be used to solve the third angle of a triangle?

A. Complement Theorem
C. Third Angles Theorem
B. Right Angles Congruency Theorem
D. Vertical Angle Theorem

19. The side common to two angles of a triangle is called:

A. Congruent side
B. Corresponding side
C. Included side
D. Paired side

20. The angle between two sides of a triangle is called:

A. Congruent $\angle$
B. Corresponding $\angle$
C. Included $\angle$
D. Paired $\angle$

21. Which triangle congruence postulate states that if the three sides of one triangle are congruent to the corresponding sides of another triangle, then the two triangles are congruent?

A. ASA Congruence Postulate
C. SSS Congruence Postulate
B. SAS Congruence Postulate
D. AAS Congruence Postulate

22. How do we determine if two triangles are congruent?

A. Corresponding sides must be congruent.

B. Corresponding angles must be congruent.

C. Corresponding sides and angles must be congruent.

D. Included sides and angles must be congruent.

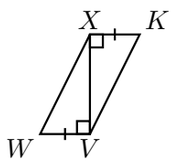
23. Which of the following is NOT a property of congruence?

A. Additive Property
B. Reflexive Property
C. Symmetric Property
D. Transitive Property

24. Given $\triangle ABC$, determine the included side between $\angle B$ and $\angle C$.

A. $\overline{AB}$
B. $\overline{AC}$
C. $\overline{BC}$
D. $\overline{BA}$

25. Which parts must be congruent if $\triangle XVW \cong \triangle VXK$ using the SSS congruence postulate?



A. $\overline{WV} \cong \overline{KX}$
B. $\overline{XV} \cong \overline{VX}$
C. $\overline{VW} \cong \overline{XK}$
D. $\overline{WX} \cong \overline{KV}$

Answer Key

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   Solution:

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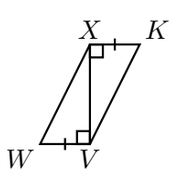

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