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| 1. Given that *D*-*E*-*F* on , name the property that leads to the conclusion .   |  |  | | --- | --- | | *ANSWER:* | Segment-Addition Postulate | |

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| 2. Name the property that justifies the following conclusion: If , then .   |  |  | | --- | --- | | *ANSWER:* | Distributive Property | |

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| 3. In the figure, the exterior sides of the adjacent angles ( and ) form perpendicular rays. How are these angles related?   |  |  | | --- | --- | | *ANSWER:* | They are complementary. | |

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| 4. If two lines intersect, any two adjacent angles formed are:   |  |  | | --- | --- | | *ANSWER:* | supplementary | |

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| 5. If two planes intersect, they intersect in a(n):   |  |  | | --- | --- | | *ANSWER:* | line | |

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| 6. A property of geometry that is accepted as true without proof is a(n):   |  |  | | --- | --- | | *ANSWER:* | postulate | |

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| 7. The instrument used to construct circles and arcs is the:   |  |  | | --- | --- | | *ANSWER:* | compass | |

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| 8. Considering the definitions and postulates of geometry, which of the following is a correct statement?   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | An angle has more than one angle-bisector. | b. | A line segment has two midpoints. | |  | c. | A line segment has two endpoints. | d. | A plane contains exactly three noncollinear points. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 9. Consider a set of lines. Which is a property of the relation “is perpendicular to” for lines?   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | Reflexive | b. | Symmetric | |  | c. | Transitive | d. | None of These |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 10. Which property justifies this conclusion? If *X* is a point on and *R*-*X*-*S*, then .   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | Segment-Addition Postulate | b. | Line-Addition Postulate | |  | c. | Ruler Postulate | d. | None of These |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 11. Consider the definition: An isosceles triangle is a triangle that has two congruent sides. Which result must follow from the definition?   |  |  |  | | --- | --- | --- | |  | a. | If is isosceles, then it has two congruent angles. | |  | b. | If in , then is an isosceles triangle. | |  | c. | If has two congruent sides, then has two congruent angles. | |  | d. | None of These |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 12. In geometry, what is a postulate?   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | statement that defines a term | b. | statement that must be proved | |  | c. | a type of geometric figure | d. | None of These |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 13. For a construction problem, which instrument could you use?   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | calculator | b. | protractor | |  | c. | tape measure | d. | compass |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 14. Which is not a method of reasoning used in geometry?   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | construction | b. | induction | |  | c. | intuition | d. | deduction |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 15. The relation between lines, “is perpendicular to,” has a transitive property.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | |

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| 16. According to the Angle-Addition Postulate, m  m = m.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |

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| 17. An angle is the union of two rays that have a common endpoint.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |

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| 18. A postulate is accepted without proof while a theorem is a statement that must be proved.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |

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| 19. Points *A*, *B*, and *C* are said to be collinear if they lie on a line.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |