# **NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_PER.\_\_\_\_\_\_**

## **2.6 – Geometric Proofs**

**Name the property that justifies each statement.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |

1. |
| 2.

|  |  |
| --- | --- |
| **Statement** | **Reason** |
| If , then . |  |

 |
| 3.

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |

 |
| 4.

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
| ;  |  |
|  |  |

 |
| 5.

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  and  |  |
|  |  |

 |
| 6.

|  |  |
| --- | --- |
| **Statement** | **Reason** |
| If , then . |  |

 |
| 7.

|  |  |
| --- | --- |
| **Statement** | **Reason** |
|  |  |

 |
| 8.

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |
|  |  |

 |
| 9.

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |
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 |
| 10.

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |
|  |  |
|  |  |

 |
| 11. If , then .

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |

 |
| 12. If and , then  .

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |
|  |  |

  |
| 13. Given: is the midpoint of  Prove:

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |

 |
| 14. Given: is a right angle Prove:

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |

 |
| 15. Given: and

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |

 Prove: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 16. Given:  Prove:

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |
|  |  |

p |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 17. Given:  Prove:

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |

 |
| 18. Given: and  Prove:

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |

 |
| 19. Given: is between and  Prove:

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |

 |
| 20. Given: is in the interior of

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |

 Prove:  |
| 21. Given:

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |

 Prove: is an obtuse  |
| 22. Given: bisects at  Prove:

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
| is the midpoint of  |  |
|  |  |

p |
| 23.

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |
|  |  |

 |
| 24.

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  lies between and  |  |
|  |  |

p |
| 25.

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
| Lines and intersect |  |
|  |  |

 |
| 26.

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  bisects  |  |
|  |  |

 |
| 27.

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  and are supplementary |  |
|  |  |

 |