# **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** | |  |  | |  |  | |  |  | |
| 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 |  | |  |  | |