NAME _____ DATE _____

Practice

If-Then Statements and Postulates

Identify the hypothesis and conclusion of each conditional statement.

1. If $3x - 1 = 7$, then $x = 2$.

2. If Carl scores 85%, then he passes.

Write each conditional statement in if-then form.

3. All students like vacations.

4. The game will be played provided it doesn't rain.

Write the converse of each conditional. Determine if the converse is true or false. It if is false, give a counterexample.

5. If it rains, then it is cloudy.

6. If x is an even number, then x is divisible by 2.

In the figure, P, Q, R, and S are in plane* N *. Use the postulates you have learned to determine whether each statement is true or false.

7. R, S, and T are collinear.

8. There is only one plane that contains all the points R, S, and Q.

9. $\angle PQT$ lies in plane $\mathcal{N}$.

10. $\angle SPR$ lies in plane $\mathcal{N}$.

11. If X and Y are two points on line m, then $\overleftrightarrow{XY}$ intersects plane $\mathcal{N}$ at P.

12. Point K is on plane $\mathcal{N}$.

13. $\mathcal{N}$ contains $\overline{RS}$.

14. T lies in plane $\mathcal{N}$.

15. R, P, S, and T are coplanar.

16. ℓ and m intersect.