Name _____ **Date** _____

LESSON 2.4

Practice C

For use with pages 96–102

Draw a sketch that illustrates the postulate in if-then form.

1. Postulate 9

If

_____

_____

then

_____

_____

2. Postulate 8

If

_____

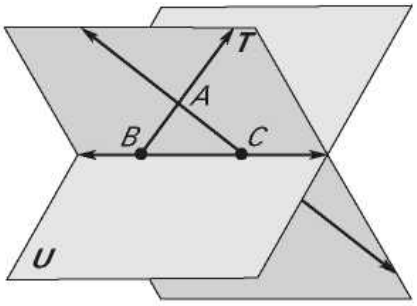
_____

then

_____

_____

Use the diagram to write an example of the postulate.



3. Postulate 5
4. Postulate 6
5. Postulate 7
6. Postulate 8
7. Postulate 9
8. Postulate 10
9. Postulate 11

Sketch a diagram showing the given information.

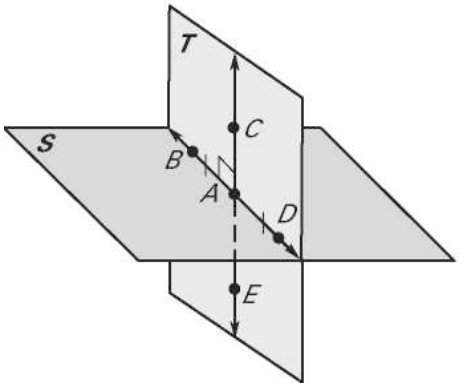
10. $\overleftrightarrow{AB} \perp \overleftrightarrow{BC}$

11. Line m bisects $\overline{ST}$

12. $\overleftrightarrow{LN} \perp$ plane A and plane A bisects $\overleftrightarrow{LN}$

13. Plane G intersects plane H in $\overleftrightarrow{EF}$, point D lies in plane G, $\overleftrightarrow{DE} \perp$ plane H.

Can the statement be assumed to be true from the diagram? *Explain*.



14. $\overrightarrow{AB}$ and $\overrightarrow{AD}$ are opposite rays.

15. $\angle BAC$ and $\angle CAD$ are supplementary.

16. $\angle BAC \cong \angle BAE$

17. $\overleftrightarrow{CE} \perp$ plane S

18. $\overleftrightarrow{BD}$ lies in plane S and in plane T

19. If G is a point in plane S, then $\overleftrightarrow{CG}$ lies in S.

20. $\overleftrightarrow{CE}$ bisects $\overline{BD}$

21. Plane T bisects $\overline{BD}$.

Decide whether the statement is *true or false*. If it is false, give a real-world counterexample.

22. Through any three collinear points there exists exactly one plane.

23. Given any four noncollinear points, there exists at least one plane passing through all four points.

24. If two lines intersect in a point, then at most one plane contains both lines.