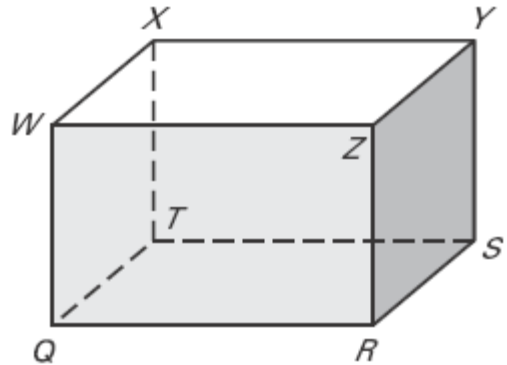


Geometry A
Section 3.1 Homework

Name: _____
Date : _____ Period : _____

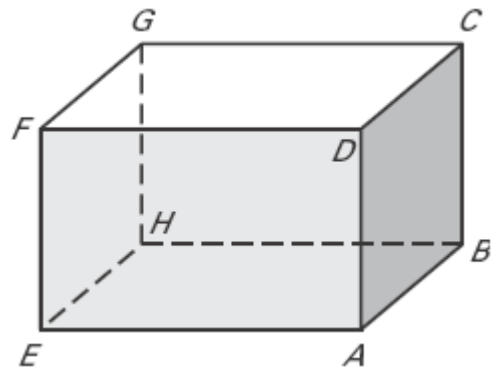
Think of each segment in the diagram as part of a line. Complete the statement with *parallel*, *skew*, or *perpendicular*.

- \overleftrightarrow{WZ} and \overleftrightarrow{ZR} are _____.
- \overleftrightarrow{WZ} and \overleftrightarrow{ST} are _____.
- \overleftrightarrow{QT} and \overleftrightarrow{YS} are _____.
- Plane WZR and plane SYZ are _____.
- Plane RQT and plane YXW are _____.



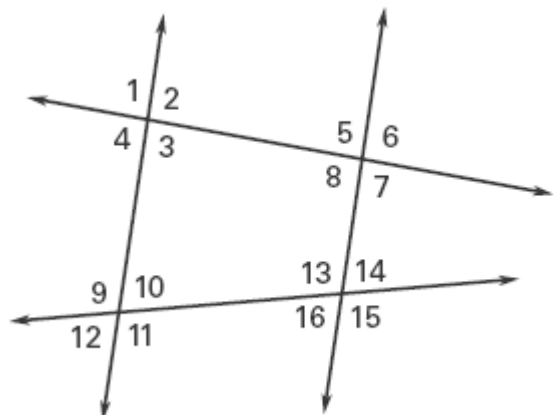
Think of each segment in the diagram as part of a line. Which line(s) or plane(s) appear to fit the description?

- Line(s) parallel to \overleftrightarrow{EH}
- Line(s) perpendicular to \overleftrightarrow{EH}
- Line(s) skew to \overleftrightarrow{CD} and containing point F
- Plane(s) perpendicular to plane AEH
- Plane(s) parallel to plane FGC

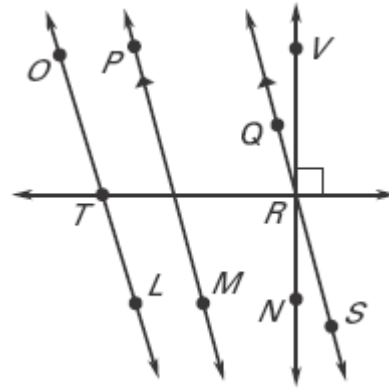


Classify the angle pair as *corresponding*, *alternate interior*, *alternate exterior*, or *consecutive interior* angles.

- $\angle 1$ and $\angle 9$ _____
- $\angle 8$ and $\angle 13$ _____
- $\angle 6$ and $\angle 16$ _____
- $\angle 4$ and $\angle 10$ _____
- $\angle 8$ and $\angle 16$ _____
- $\angle 10$ and $\angle 13$ _____



In Exercises 17-20, use the markings in the diagram.



17. Name a pair of parallel lines.
18. Name a pair of perpendicular lines.
19. Is $\overleftrightarrow{OL} \parallel \overleftrightarrow{TR}$? Explain.
20. Is $\overleftrightarrow{OL} \perp \overleftrightarrow{TR}$? Explain.

Copy and complete the statement with *sometimes*, *always*, or *never*.

21. If two lines are parallel, then they _____ intersect.
22. If one line is skew to another, then they are _____ coplanar.
23. If two lines intersect, then they are _____ perpendicular.
24. If two lines are coplanar, then they are _____ parallel.

Answer Key

1. perpendicular
2. parallel
3. skew
4. perpendicular
5. parallel
6. \overleftrightarrow{FG} , \overleftrightarrow{DC} , \overleftrightarrow{AB} ,
7. \overleftrightarrow{AE} , \overleftrightarrow{BH} , \overleftrightarrow{EF} , \overleftrightarrow{HG} ,
8. \overleftrightarrow{EF}
9. planes EFG , ABC , ADF , and BCG
10. plane EHB
11. corresponding
12. consecutive interior
13. alternate exterior
14. alternate interior
15. corresponding

16. consecutive interior
17. $\overleftrightarrow{PM} \parallel \overleftrightarrow{QS}$
18. $\overleftrightarrow{VN} \perp \overleftrightarrow{RT}$
19. No; the lines intersect at T .
20. No; there is no right angle symbol shown.
21. never
22. never
23. sometimes
24. sometimes