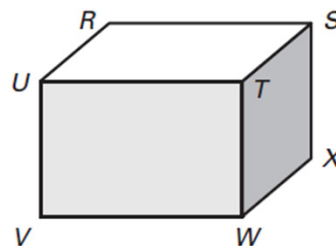


## Geo 3.1- Relationships Between Lines Practice

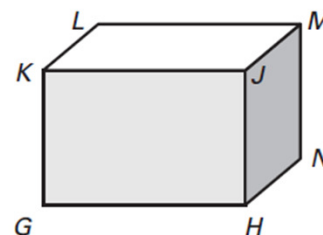
### Part 1

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



1.  $\overleftrightarrow{UT}$  and  $\overleftrightarrow{WT}$  are    ?   .
2.  $\overleftrightarrow{RS}$  and  $\overleftrightarrow{VW}$  are    ?   .
3.  $\overleftrightarrow{TU}$  and  $\overleftrightarrow{WX}$  are    ?   .
4. plane  $VWT$  and plane  $RSX$  are    ?   .
5. plane  $RST$  and plane  $SXW$  are    ?   .

Think of each segment in the diagram as part of a line.  
There may be more than one correct answer.



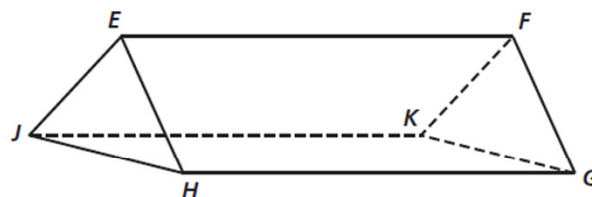
6. Name a line parallel to  $\overleftrightarrow{HJ}$ .
7. Name a line perpendicular to  $\overleftrightarrow{LM}$ .
8. Name a line skew to  $\overleftrightarrow{GH}$ .
9. Name a plane parallel to plane  $GHI$ .
10. Name a plane perpendicular to plane  $KLM$ .

### Part 2

Write *true* or *false*.

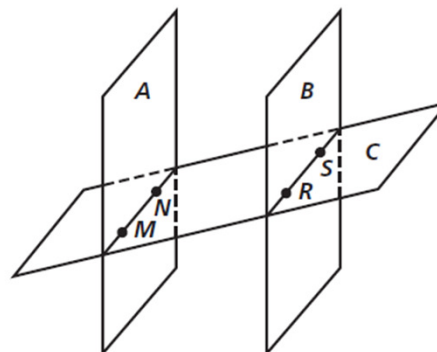
- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. <math>\overleftrightarrow{XY}</math> is the same as <math>\overleftrightarrow{YX}</math>.</li> <li>3. If <math>\overleftrightarrow{AB}</math> and <math>\overleftrightarrow{AC}</math> are opposite rays, then they are collinear.</li> <li>5. If the union of two rays is a line, then the rays are opposite rays.</li> </ol> | <ol style="list-style-type: none"> <li>2. <math>\overleftrightarrow{XY}</math> is the same as <math>\overleftrightarrow{YX}</math>.</li> <li>4. If two rays have the same endpoint, then they form a line.</li> <li>6. If <math>\overleftrightarrow{PQ}</math> and <math>\overleftrightarrow{PR}</math> are the same rays, then <math>Q</math> and <math>R</math> are the same point.</li> </ol> |
|--|--|

Refer to the diagram at the right.



7. Name all segments parallel to  $\overleftrightarrow{EF}$ .
8. Name all segments parallel to  $\overleftrightarrow{FG}$ .
9. Name three pairs of skew lines.

Refer to the diagram at the right.



10. Which pair(s) of planes is (are) parallel?
11. Which pair(s) of planes intersect?
12. Which planes intersect in  $\overleftrightarrow{MN}$ ?
13. Which planes intersect in  $\overleftrightarrow{RS}$ ?