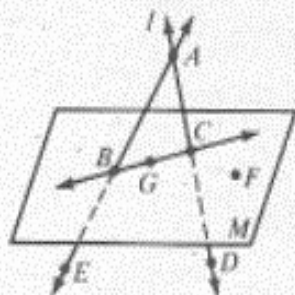


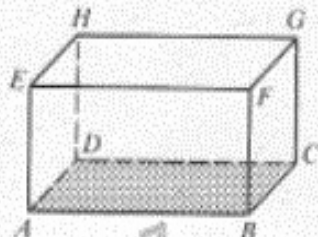
Classify each statement as true or false.

1. \overrightarrow{BC} is in plane M . **true**
2. Plane M contains \overrightarrow{AB} . **false**
3. Line l intersects \overrightarrow{AB} at point B . **false**
4. \overrightarrow{AB} and \overrightarrow{DA} intersect at A . **true**
5. \overrightarrow{AD} is in plane M . **false**
6. Plane M intersects \overrightarrow{AE} at point B . **true**
7. \overrightarrow{AE} intersects plane M at point B . **true**
8. A , B , and E are collinear. **true**
9. B , F , and D are collinear. **false**
10. A , B , and C are coplanar. **true**
11. B , C , F , and G are coplanar. **true**
12. A , B , C , and G are coplanar. **true**
13. A , B , C , and F are coplanar. **false**



The plane that contains the shaded region can be called plane $ABCD$. Answers may vary.

14. Name three lines that intersect at point G . \overrightarrow{HG} , \overrightarrow{CG} , \overrightarrow{FG}
15. Name two planes whose intersection is \overrightarrow{FB} . $EFBA$, $FGCB$
16. Name the intersection of plane $EHGF$ and plane $EFBA$. \overrightarrow{EF}
17. Name two planes that do not intersect. $ABCD$, $EFGH$; $FGCB$, $EHDA$; $HGCD$, $EFBA$
18. Are points D , H , G , and C coplanar? **yes**
19. Are points D , H , G , and F coplanar? **no**
20. Are points A , B , G , and H coplanar? **yes**



Sketch and label the figures described. Use dashes for parts hidden from view. See Additional Answers.

21. Line \overrightarrow{AB} intersects plane X at point C .
22. Two planes M and N intersect in line l .
23. Horizontal plane P contains two lines \overrightarrow{RS} and \overrightarrow{TU} that intersect at point O .

