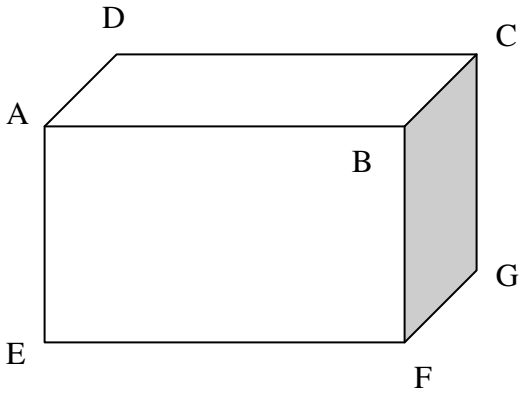
Practice Problems for Lesson 1-5 Name:

1) If planes S and T are known to intersect, what kind of figure is the intersection? State the theorem or postulate that supports your answer.

2) If points A and B are known to lie in a plane, what can you say about $\overleftrightarrow{AB}$? State the theorem or postulate that supports your answer.



Using the box above (the hidden point is H) answer the following.

3) Write the postulate that assures you that $\overleftrightarrow{AC}$ exists.

4) Name a plane that contains $\overleftrightarrow{AC}$.

5) Name a plane that contains $\overleftrightarrow{AC}$ but that is not <u>on</u> the box.

6) Name the intersection of plane DCFE and plane ABCD.

7) Name four lines shown in the diagram that do not intersect.

8) Name two lines that are shown and do not intersect plane EFGH.

9) Name three planes that don't intersect $\overleftrightarrow{EF}$ and don't contain $\overleftrightarrow{EF}$.

Tell whether it is possible for the figure described to exist. Write yes or no and state the postulate or theorem that supports your answer.

10) Two points both lie in each of two lines.

11) Three points all lie in each of two planes.

12) Three noncollinear points all lie in each of two planes.

13) If points R, S, and T are noncollinear points

a) then there is a plane *X* that contains them all.

b) suppose P is a point on line RS. Does point P lie in plane *X*?

c) line TP is in plane *X*.