Points and Lines Practice

Draw a model for each of the situations described. Label your sketch.

1. A set of three lines that has three points of intersection.
2. A set of three lines has exactly two points of intersection.
3. Lines $j$, $k$, and $l$ are concurrent.
4. $\overline{AB}$ intersects $q$ at $R$.

5. $H$, $I$, and $J$ are collinear with $I$ between $H$ and $J$ and $K$ between $I$ and $J$.

6. Sketch a line that contains point $R$ between $S$ and $T$.

Which of the following correctly names the line? (Circle all correct answers)

$\overline{ST}$  $\overline{TS}$  $\overline{RS}$  $\overline{ST}$  $\overline{SRT}$  $\overline{ST}$  $\overline{TR}$

STOP! (If you are waiting for others to finish, you can TRY the back... but it includes planes).
7. a. Use a blue/green/purple colored pen to shade plane $ABC$.

b. Use a yellow/orange/red pen to outline $BD$.

c. Name the intersection of plane $ABC$ and $BD$.

8. Given the figure to the right, decide whether each statement is *true* or *false*.

a. Points $A$, $B$, and $C$ are collinear.

b. Points $A$, $B$, and $C$ are coplanar.

c. Point $F$ lies on $DE$.

d. $DE$ lies on plane $DEF$.

e. $BD$ and $DE$ intersect.

f. $BD$ is the intersection of plane $ABC$ and plane $DEF$.

9. Which of the following statements are true?

a. Any set of two points is collinear?

b. If three points are collinear, then they are coplanar.

c. If three points are coplanar, then they are collinear.

BONUS. $AB$ and $CD$ are parallel and $AB$ and $EF$ are perpendicular.

BONUS. Draw plane $E$ and draw two intersecting lines, $p$ and $q$ that lie in $E$. Draw line $r$ that intersects both $p$ and $q$ but that does not lie in $E$. 