3.1 Practice Solutions

1) A pair of parallel planes
   \[ \text{plane } JG \text{ and plane } ELHBA \]

2) All lines that are parallel to \( \overline{AB} \)

3) All lines that are parallel to \( \overline{CD} \)

4) Two lines that are skew to \( \overline{EF} \)

5) All lines that are parallel to plane \( JFAE \)

6) A plane parallel to \( \overline{CD} \) is \( \text{plane } JCDOF \)

7) \[ \text{Alt. Ext.} \]

8) \[ \text{Corr.} \]

9) \[ \text{Alt. Int.} \]

10) \[ \text{Alt. Ext.} \]

11) \[ \text{Same-Side Int.} \]

12) \[ \text{Same-Side Int.} \]

Directions: Identify all pairs of each type of angles in the diagram. Name the two lines and the transversal that form each pair.

13) Corresponding angles
    \[ \angle 7 \text{ and } \angle 1 \text{ is transversal} \]

14) Alternate interior angles
    \[ \angle 3 \text{ and } \angle 5 \text{ is transversal} \]

15) Alternate exterior angles
    \[ \angle 8 \text{ and } \angle 6 \text{ is transversal} \]

16) Same-side interior angles
    \[ \angle 7 \text{ and } \angle 5 \text{ is transversal} \]

Directions: Determine whether each statement is always, sometimes or never true.

17) Two parallel lines are coplanar
    \[ \text{ALWAYS} \]

18) Two skew lines are coplanar
    \[ \text{NEVER} \]

19) Two planes that do not intersect are parallel
    \[ \text{ALWAYS} \]

20) Two lines in intersecting planes are skew
    \[ \text{SOMETIMES} \]

21) A line and a plane that do not intersect are skew
    \[ \text{NEVER} \]

22) Alternate interior angles are on the same side of a transversal
    \[ \text{NEVER} \]