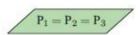
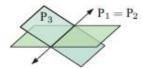
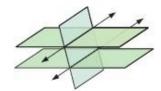
- · Three planes in space could have any of the following eight arrangements:
 - (1) all coincident
- (2) two coincident and one intersecting
- (3) two coincident and one parallel



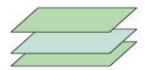


 $P_1 = P_2$ P_3

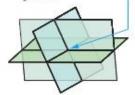
(4) two parallel and one intersecting



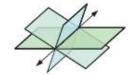
(5) all three parallel



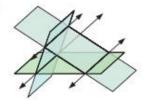
(6) all meet at the one point



(7) all meet in a common line



(8) the line of intersection of any two is parallel to the third plane.



All these possibilities will end up only three situations:

- (a) No solution
- (b) One solution
- (c) Infinite solutions