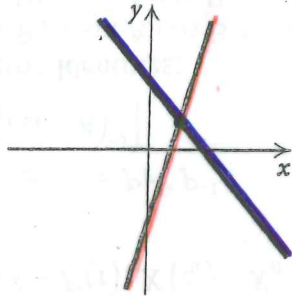


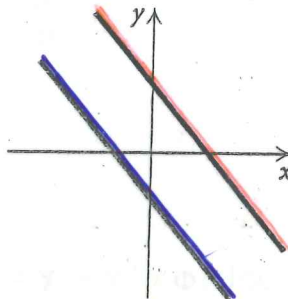
CONSISTENT
(INDEPENDENT)



Exactly one common point
One solution

Consistent
Independent

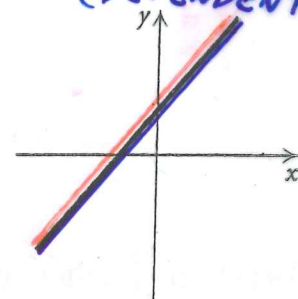
INCONSISTENT



Parallel lines
No common points
No solution

Inconsistent
Independent

CONSISTENT
(DEPENDENT)

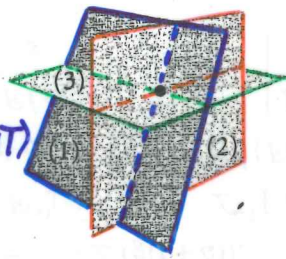


Lines are identical
Infinitely many common points
Infinitely many solutions

Consistent
Dependent

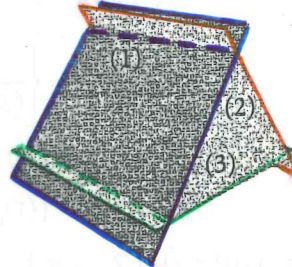
If a system of equations has at least one solution, it is **consistent**. If the system has no solutions, it is **inconsistent**. In addition, if a system of two linear equations in two variables has an infinite number of solutions, the equations are **dependent**. Otherwise, they are **independent**.

(INDEPENDENT)

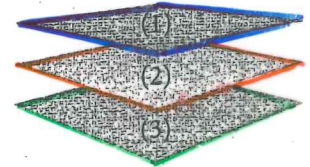


One solution: planes intersect in exactly one point.

INCONSISTENT

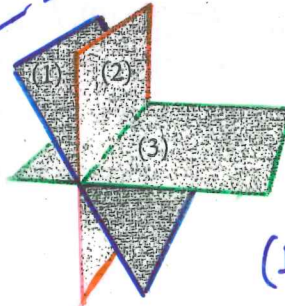


No solution: three planes; each intersects another; at no point do all intersect.



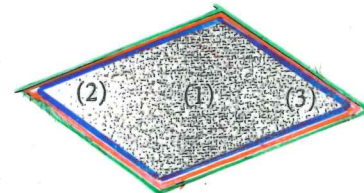
No solution: parallel planes.

CONSISTENT



Infinitely many solutions: planes intersect in a line.

(DEPENDENT)



Infinitely many solutions: planes are identical.