4 - Plane

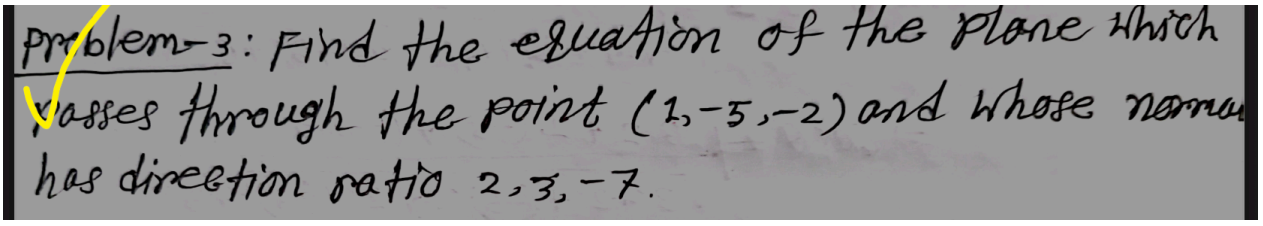
- If any plane pass through a point (x_1, y_1, z_1) and the direction ratios are a, b, c then the equation of the plane is :

$$a(x - x_1) + b(y - y_1) + c(z - z_1) = 0$$

- Length of the normal of a plane $ax + by + cz = d$ is $|\frac{d}{\sqrt{a^2+b^2+c^2}}|$
- the direction ratio of a plane is same as the direction ratio of it's normal.

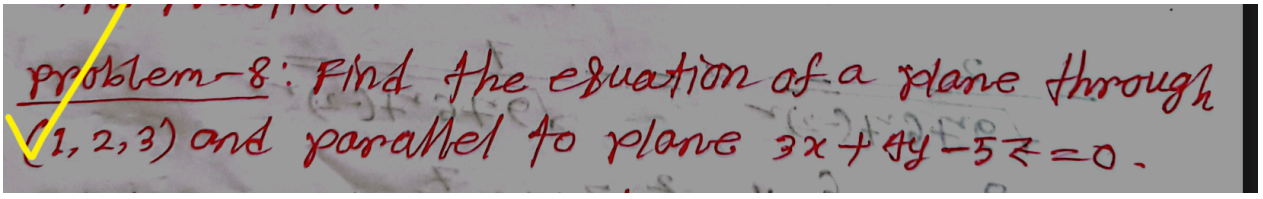
Must do

- just remind

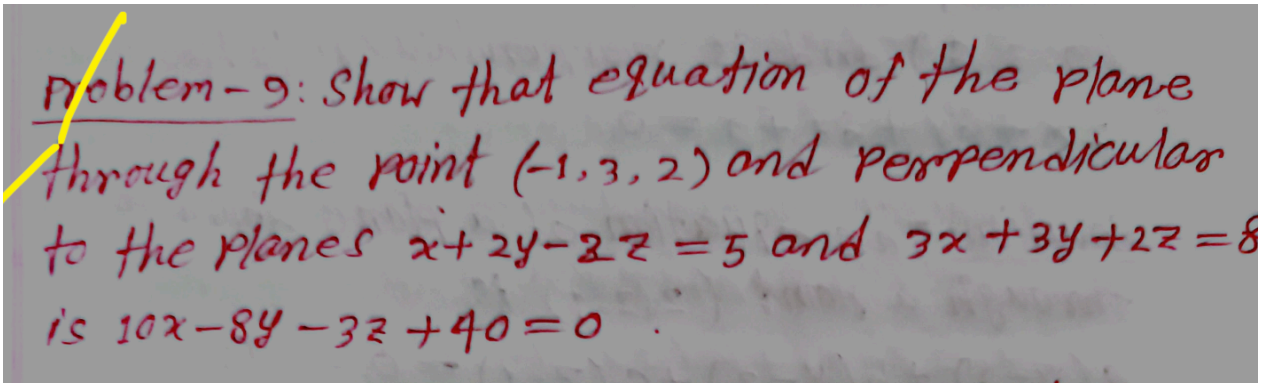


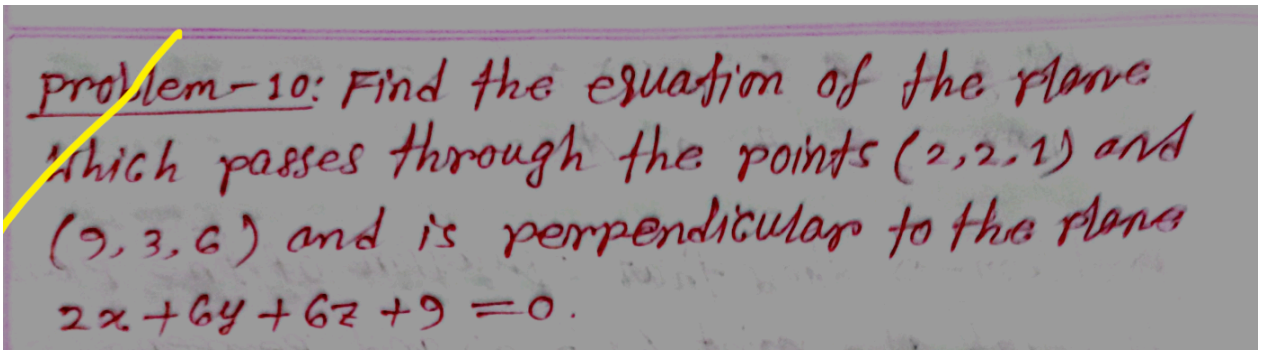
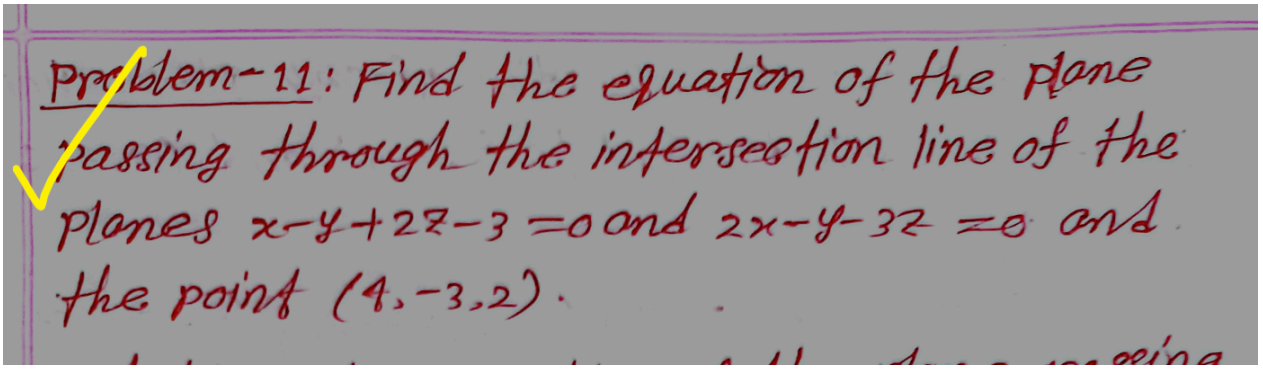
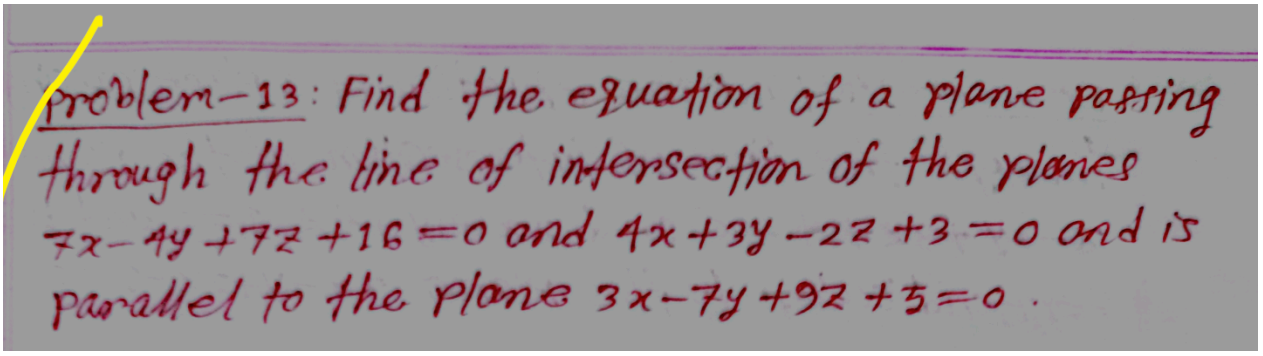
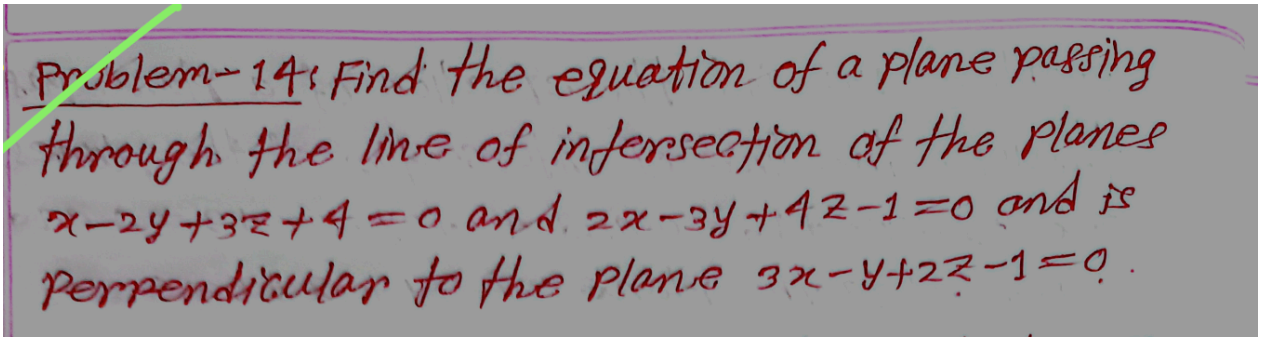
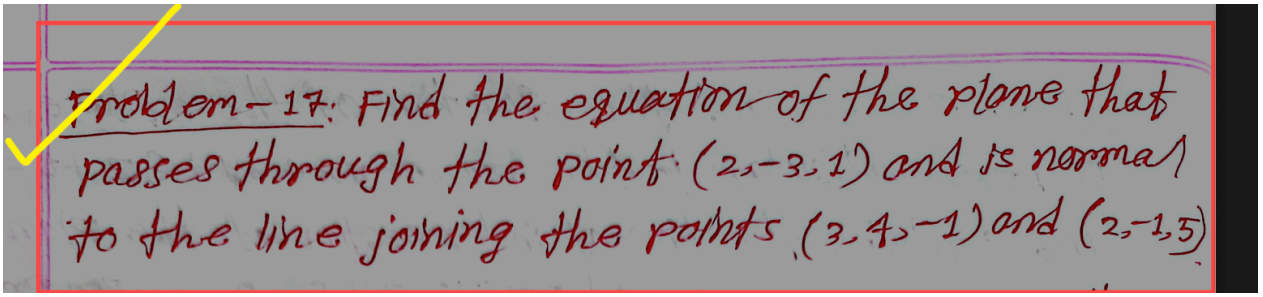
- the length of normal

-



- just remind the process



- 
Problem-10: Find the equation of the plane which passes through the points (2,2,1) and (9,3,6) and is perpendicular to the plane 2x+6y+6z+9=0.
- must do
- 
Problem-11: Find the equation of the plane passing through the intersection line of the planes x-y+2z-3=0 and 2x-y-3z=0 and the point (4,-3,2).
- 
Problem-13: Find the equation of a plane passing through the line of intersection of the planes 7x-4y+7z+16=0 and 4x+3y-2z+3=0 and is parallel to the plane 3x-7y+9z+5=0.
- 
Problem-14: Find the equation of a plane passing through the line of intersection of the planes x-2y+3z+4=0 and 2x-3y+4z-1=0 and is perpendicular to the plane 3x-y+2z-1=0.
- 
Problem-17: Find the equation of the plane that passes through the point (2,-3,1) and is normal to the line joining the points (3,4,-1) and (2,-1,5)