MATHS

BOOKS - TELUGU ACADEMY MATHS (TELUGU ENGLISH)

THE PLANE

Vsaq 1 X 2 2

1. Write the equations of the plane $4x - 4y + 2z + 5 = 0$ in the intercept form.

2. Find the intercepts of the plane $4x + 3y - 2z + 2 = 0$ on the coordinate axes.

3. Find the equation of the plane which makes intercepts 1,2,4 on the x,y,z - axes respectively.

4. Reduce the equation $x + 2y - 3z - 6 = 0$ of the plane to the normal form.

5. Find the direction cosines of the normal to the plane $x + 2y + 2z - 4 = 0$

6. Find the equation of the plane through the point (α, β, γ) and parallel to the plane $ax + by + cz = 0$

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7. Find the equation of the plane passing through the point (1,1,1) and parallel to the plane $x + 2y + 3z - 7 = 0$

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8. Find the equation of the plane passing through the point (-2,1,3) and having (3,-5,4) as d.r.'s of its normal.

9. Find the equation of the plane through (-1,6,2) are perpendicular to the join of (1,2,3) and (-2,3,4).

10. Find the equation of the plane If the foot of the perpendicular from origin of the plane is A(1,3,-5)

11. Find the equation of the plane passing through the point (2,3,4) and perpendicular to the x-axis.

12. Find the equation to the plane parallel to the ZX-plane and passing through (0,4,4).

13. Find the angle between the planes $2x - y + z = 6$ and $x + y + 2z = 7$

14. IF the plane meets the co-ordinate axes in A,B,C such that the centroid of the triangle ABC is the point (p,q,r) then show that the equation of the plane is $\dfrac{x}{p} + \dfrac{y}{q} + \dfrac{z}{r} = 3.$

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15. Show that the plane through (1,1,1),(1,-1,1) and (-7,-3,-5) is parallel to the Y-axis.

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16. Write the equation of a plane in the normal form and explain the terms.

Spq

1. Find the equation of the plane passing through the point (1,2,-3) and parallel to the plane $2x - 3y + 6z = 0$

2. Find the equation of the plane If the foot of the perpendicular from origin of the plane is A(2,3,-5).

3. Find the angle between the planes $x + 2y + 2z - 5 = 0$ and $3x + 3y + 2z - 8 = 0$