

1. The coordinates of the foot of the perpendicular drawn from the point $(0, 1, 2)$ on the x -axis are given by:
 - (a) $(1, 0, 0)$
 - (b) $(2, 0, 0)$
 - (c) $(\sqrt{5}, 0, 0)$
 - (d) $(0, 0, 0)$
2. If a line makes an angle of 30° with the positive direction of x -axis, 120° with the positive direction of y -axis, then the angle which it makes with the positive direction of z -axis is:
 - (a) 90°
 - (b) 120°
 - (c) 60°
 - (d) 0°
3. Find the equation of the line which bisects the line segment joining points $A(2, 3, 4)$ and $B(4, 5, 8)$ and is perpendicular to the lines $\frac{x-8}{3} = \frac{y+19}{-16} = \frac{z-10}{7}$ and $\frac{x-15}{3} = \frac{y-29}{8} = \frac{z-5}{-5}$
4. If A_1 denotes the area of region bounded by $y^2 = 4x$ and x -axis in the first quadrant and A_2 denotes the area of region bounded by $y^2 = 4x$, $x = 4$, find $A_1 : A_2$.