Q 1. Find parametric equations and symmetric equations of the line that passes through the points \( P(2, 4, -3) \) and \( Q(3, -1, 1) \). At what point this line intersects \( xz \)-plane?

Q 2. Find and sketch the domain of \( f(x, y) = \sqrt{x} + \sqrt{y} + ln(9 - x^2 - y^2) \) and find level curve of \( f(x, y) \) that passes through the point \((2, 2)\).
Q 1. Find the equation of the plane that contains the line \( x = 4 - t, \ y = 2t - 1, \ z = -3t \) and passes through the point \( (3, 5, -1) \).

Q 2. Find and sketch the domain of 
\[
    f(x, y) = \frac{\sqrt{x-y^2}}{\ln(4-x^2-y^2)}
\]
and find level curve of 
\( f(x, y) \) that passes through the point \( (1,1) \).
Q 1. Find the equation of plane $P_1$ through $A(3, 0, -3)$ and perpendicular to the vector from the origin to A. Find angle between the planes $P_1$ and $P_2$: $x - y = 1$.

Q 2. Find and sketch the domain of $f(x, y) = \frac{\sqrt{x-1}}{y}$ and find level curve of $f(x, y)$ that passes through the point $(4,3)$.
Q 1. Find parametric equations and symmetric equations of the line that passes through the point $P(-6, 2, 3)$ and parallel to the line $\frac{1}{2}x = \frac{1}{3}y = z + 1$. At what point this line intersects $yz$-plane?

Q2. Find and sketch the domain of $f(x, y) = 4\ln(3 - 2x^2 - y^2)$ and find level curve of $f(x, y)$ that passes through the point (1,0).