

Answer on Question #69168 – Math – Calculus

Question

Given the scalar defined by $\Phi(x, y, z) = 3x^2z - xy^2 + 5$, find Φ at the point $(-1, -2, -3)$.

Solution

$$\Phi(-1, -2, -3) = 3(-1)^2(-3) - (-1)(-2)^2 + 5 = -9 + 4 + 5 = -9 + 9 = 0.$$

Answer: 0.