



Question

Suppose you wanted to find the point (x, y, z) on the surface $z = x^2 + y^2$ which is closest to the point $(1, 2, 3)$. Which of the following functions of x and y would you minimize?

- A. $\sqrt{(x - 1)^2 + (y - 2)^2 + (x^2 + y^2 - 3)^2}$
- B. $(x - 1)^2 + (y - 2)^2 + (x^2 + y^2 - 3)^2$
- C. $\sqrt{(x - 1)^2 + (y - 2)^2}$
- D. More than one of the above.