

The pressure in kilopascals (kPa) at the point (x, y, z) , each in feet, is given by a function $P(x, y, z)$. It is known that

$$P(3, 1, 2) = 1031, \quad P_x(3, 1, 2) = -1.3$$

$$P_y(3, 1, 2) = 0.8, \quad P_z(3, 1, 2) = 2.4$$

1. Write a sentence interpreting $P(3, 1, 2) = 1031$.
2. What are the units for $P_x(3, 1, 2) = -1.3$? Write a sentence interpreting $P_x(3, 1, 2) = -1.3$.
3. Using the given information, you should be able to approximate the value of $P(5, 4, 3)$. Do so.
4. Use the same method to approximate $P(4, 3, 1)$.