**c) Solving the linear path problem linear spline formula**

import numpy as np

from scipy.interpolate import interp1d

# Given data points

x = np.array([2.00, 4.25])

y = np.array([7.2, 7.1])

# Linear interpolation

linear\_interp = interp1d(x, y)

# Value of x for which we need y

x\_new = 4.0

# Interpolated value of y at x = 4.0

y\_new = linear\_interp(x\_new)

print(y\_new)