import pandas as pd

data\_new = [10, 20, 30, 40, 50, 60]

index\_new = pd.MultiIndex.from\_tuples([('X', 1), ('X', 2), ('Y', 1), ('Y', 2), ('Z', 1), ('Z', 2)])

series\_new = pd.Series(data\_new, index=index\_new)

print("Series with MultiIndex:")

print(series\_new)

subset\_X = series\_new.loc['X']

print("\nSubset X:")

print(subset\_X)

subset\_X\_inner\_2 = series\_new.loc[('X', 2)]

print("\nSubset X, Inner 2:")

print(subset\_X\_inner\_2)

subset\_Y = series\_new.loc['Y']

print("\nSubset Y:")

print(subset\_Y)

subset\_Z\_inner\_1 = series\_new.loc[('Z', 1)]

print("\nSubset Z, Inner 1:")

print(subset\_Z\_inner\_1)

subset\_Y\_xs = series\_new.xs('Y')

print("\nSubset Y using xs:")

print(subset\_Y\_xs)

subset\_inner\_2 = series\_new.xs(2, level=1)

print("\nSubset Inner Level 2 using xs:")

print(subset\_inner\_2)