# Prelim 2 – Solutions

## Q1 Solutions

1. It refers to how well data are suited to their intended use, considering accuracy, completeness and consistency.
2. Mean is the average of values; median is the middle value. Mean is sensitive to outliers; median is more robust.
3. The process of filling in missing values with estimated values to maintain dataset integrity.
4. A chart that visualises a pivot table and updates automatically when the pivot table changes.
5. A graph of paired data points showing the relationship between two variables.

## Q2 Solution

Descriptive summarises past data; prescriptive recommends actions based on predictive models.

## Q3 Solution

Skewness describes asymmetry of a distribution; kurtosis measures the heaviness of tails (outliers).

## Q4 Solution

Slicers provide interactive buttons to filter Pivot Tables and charts, improving usability and clarity.

## Q5 Solution

Combination charts plot different data series using different chart types (e.g. line and column) on the same graph to compare series with different scales.

## Q6 Solution

A subplot is one of multiple axes within a single figure. For example:

import matplotlib.pyplot as plt  
fig, (ax1, ax2) = plt.subplots(1, 2, figsize=(8,4))  
ax1.plot([1,2,3],[1,4,9])  
ax1.set\_title('Line')  
ax2.bar(['A','B','C'], [5,2,7])  
ax2.set\_title('Bar')  
plt.tight\_layout()  
plt.show()

This code displays a line chart and a bar chart side by side.