1 Chapter 12 Inference in a Changing World

Problem 12.2 *Change points, where an aspect of the world undergoes a sudden change, happen in many domains. Think of three real-world examples not mentioned in this chapter.*

Answer

1. Crashed in stock market
For example, if some big political news (:) such as the tariff)/earning call announced, it can cause an abrupt and drastic change in stock prices. This represents a change point where the statistical properties (mean, variance) of returns shift abruptly.

2. Server Outage in Network Monitoring
In cybersecurity or IT systems, the traffic volume or error rate can shift abruptly due to a server crash or cyberattack, indicating a change point in system behavior.

3. Sudden weather events
In meteorology, the onset of a storm or cold front may cause an abrupt change in temperature, wind speed, or barometric pressure. This represents a clear and measurable change point in time-series weather data.

∎