30 Weather Data & Python Practice Questions

Notes for SHS • Topic 85 • Educational resource • 2026

Question 1 · Fundamentals

Define weather data.

Write your answer and explain the reasoning before checking the worked solutions.

Question 2 · Fundamentals

Differentiate weather and climate.

Write your answer and explain the reasoning before checking the worked solutions.

Question 3 · Fundamentals

Name three weather variables.

Write your answer and explain the reasoning before checking the worked solutions.

Question 4 · Fundamentals

What is historical weather data?

Write your answer and explain the reasoning before checking the worked solutions.

Question 5 · Fundamentals

Name two authoritative providers.

Write your answer and explain the reasoning before checking the worked solutions.

Question 6 · Fundamentals

What is a Pandas DataFrame?

Write your answer and explain the reasoning before checking the worked solutions.

Question 7 · Fundamentals

Why use a datetime index?

Write your answer and explain the reasoning before checking the worked solutions.

Question 8 · Fundamentals

Why is -999 often a sentinel?

Write your answer and explain the reasoning before checking the worked solutions.

Question 9 · Fundamentals

How are Fahrenheit and Celsius related?

Write your answer and explain the reasoning before checking the worked solutions.

Question 10 · Fundamentals

What does a precipitation value mean?

Write your answer and explain the reasoning before checking the worked solutions.

Question 11 · Calculations

Average maximum in the seven-day example?

Write your answer and explain the reasoning before checking the worked solutions.

Question 12 · Calculations

Average minimum in the seven-day example?

Write your answer and explain the reasoning before checking the worked solutions.

Question 13 · Calculations

Temperature range on 2024-01-01?

Write your answer and explain the reasoning before checking the worked solutions.

Question 14 · Calculations

Highest daily maximum in the mini example?

Write your answer and explain the reasoning before checking the worked solutions.

Question 15 · Calculations

Lowest daily minimum in the mini example?

Write your answer and explain the reasoning before checking the worked solutions.

Question 16 · Calculations

Total seven-day precipitation?

Write your answer and explain the reasoning before checking the worked solutions.

Question 17 · Calculations

Wet days with precipitation >0?

Write your answer and explain the reasoning before checking the worked solutions.

Question 18 · Calculations

Wet days with precipitation ≥1mm?

Write your answer and explain the reasoning before checking the worked solutions.

Question 19 · Calculations

If 3 of 366 dates are missing precipitation, percentage?

Write your answer and explain the reasoning before checking the worked solutions.

Question 20 · Calculations

Monthly temperature mean versus precipitation total?

Write your answer and explain the reasoning before checking the worked solutions.

Question 21 · Applications

How should 20240101 be parsed?

Write your answer and explain the reasoning before checking the worked solutions.

Question 22 · Applications

How convert Fahrenheit 68°F?

Write your answer and explain the reasoning before checking the worked solutions.

Question 23 · Applications

Should missing precipitation be treated as 0?

Write your answer and explain the reasoning before checking the worked solutions.

Question 24 · Applications

Pandas monthly mean temperature syntax?

Write your answer and explain the reasoning before checking the worked solutions.

Question 25 · Applications

What does rolling(7,min_periods=7) mean?

Write your answer and explain the reasoning before checking the worked solutions.

Question 26 · Applications

Which graphs fit temperature and precipitation?

Write your answer and explain the reasoning before checking the worked solutions.

Question 27 · Applications

Does one warmer year prove climate change?

Write your answer and explain the reasoning before checking the worked solutions.

Question 28 · Applications

What does the NASA JSON payload require before DataFrame creation?

Write your answer and explain the reasoning before checking the worked solutions.

Question 29 · Applications

Why retain an unusual heat or wet event?

Write your answer and explain the reasoning before checking the worked solutions.

Question 30 · Applications

What must the weather report contain?

Write your answer and explain the reasoning before checking the worked solutions.