

Causation vs Correlation (advanced)

Name:

Date:



Causation vs. Correlation: What's the Difference?

Read the definitions and examples carefully to understand the difference between causation and correlation.

Definitions:

Causation: When one event causes another event to happen. There is a cause-and-effect relationship.

Example: Eating lots of sugary snacks causes cavities.

Correlation: When two events happen at the same time or in a similar pattern but one does not necessarily cause the other.

Example: Ice cream sales and drowning incidents both increase in the summer, but eating ice cream does not cause drowning.

Decide if the sentence is an example of causation or correlation

During hot weather, the sale of ice cream increases.

☐ correlation ☐ causation

Hot weather leads to increased cases of heat exhaustion.

☐ causation ☐ correlation

On hot days, the number of people visiting the beach rises.

☐ correlation ☐ causation

Hot weather causes asphalt on roads to expand and crack.

☐ causation ☐ correlation

Sales of bottled water often go up during hot weather.

☐ causation ☐ correlation

Hot weather results in higher rates of dehydration among outdoor workers.

☐ correlation ☐ causation

The number of sunburn cases increases as the weather gets hotter.

☐ correlation ☐ causation

During hot weather, more people choose to swim in pools.

☐ correlation ☐ causation

Describe why the increase in ice cream sales during hot weather is an example of correlation rather than causation.

Explain why hot weather causes asphalt on roads to expand and crack.

Name one sentence from the exercise that represents causation and justify your choice with scientific reasoning.

Your turn to use causation and correlation

Write a short story that includes both a causal relationship and a correlation.

Create a comic strip for your short story

Panel 1...
