

Causation vs Correlation

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

When there is more sunlight, plants tend to grow faster.

☐ correlation ☐ causation

As the temperature increases, the number of people swimming at the beach also increases.

☐ causation ☐ correlation

Deforestation leads to a decrease in the number of animal species in an area.

☐ correlation ☐ causation

Areas with higher levels of air pollution have higher rates of respiratory diseases.

☐ correlation ☐ causation

The more time spent outside, the more likely a person is to have a sunburn.

☐ causation ☐ correlation

Regions with higher rainfall have more lush vegetation.

☐ correlation ☐ causation

During full moon, there is an increase in the number of animal attacks reported.

☐ causation ☐ correlation

The presence of certain types of fungi in soil is associated with the growth of healthier plants.

☐ causation ☐ correlation

Explain why the sentence 'As the temperature increases, the number of people swimming at the beach also increases' is an example of correlation.

Describe why the sentence 'Deforestation leads to a decrease in the number of animal species in an area' is an example of causation.

Explain why the sentence 'The presence of certain types of fungi in soil is associated with the growth of healthier plants' is an example of causation.

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...
