

# Scientific Method Scenario



Darlene and her family have a beach house in Galveston. Darlene loves spending most of her summers there, but always seems to get stung by jellyfish. This summer, Darlene wants to have a good time without having to worry about the jellyfish. She wonders if the jellyfish will sting her legs if she puts scented lotion on them. She thinks the scented lotion will keep the jellyfish away, but wants to know for sure before she goes to the mall and spends her allowance at Bath & Body Works.

Darlene decides to ask 16 of her friends to participate in an experiment to find out if the lotion will work. She divides them into two groups of 8 and asks the first group to put *Sun-Ripened Raspberry* lotion on their legs before going into the water at the beach. The second group doesn't apply any lotion. They all swim in the ocean for 1 hour and then report to Darlene about any jellyfish stings they received.

The data Darlene collects from her friends is summarized on the chart below. Analyse the data and answer the analysis questions.

## Data

Friend	Stung	Not Stung	Lotion/No Lotion
Joe		X	Lotion
Sue	X		No Lotion
Bill		X	Lotion
Bob	X		No Lotion
Ray	X		Lotion
Jane		X	Lotion
Moe	X		No Lotion
Elaine	X		No Lotion
Frank		X	No Lotion
Rudy	X		Lotion
Renee		X	Lotion
Ann	X		No Lotion
Lloyd		X	Lotion
Grace	X		No Lotion
Germaine	X		No Lotion
Chloe		X	Lotion

# Analysis Questions

1. What is Darlene's hypothesis?

---

---

2. What is the control group?

---

---

3. What is the experimental group?

---

---

4. What is the experimental variable?

---

---

5. How can the data be classified?

---

---

---

6. Does the data support the hypothesis given in question #1?

---

---

7. Could this data be miss leading? Explain.

---

---

***'The important thing is not to stop questioning. Curiosity has its own reason for existing.' - Einstein***