

Which Paper Towel Is the Best Choice?

Suppose you are the new manager of a restaurant on Burlingame Avenue. The kitchen staff has complained that the paper towels the restaurant uses are not absorbent enough to clean up spills. The owner of the restaurant tells you that you are allowed to purchase a new brand of paper towel but that you must choose from among the four lowest-priced paper towel brands in the area.

Making decisions based on well-designed experiments and writing proper lab reports are at the heart of this class.

Purpose: The purpose of this lab is to design a procedure for testing different brands of paper towels for:

- Absorbency (mL of water absorbed per sheet)

As well as to gain experience writing lab reports following the BHS Lab Notebook Policy

Procedure:

Your lab group will be given 3 paper towels from each of the four brands to be tested.

- Absorbency
 - Take the initial mass of the dry paper towel and record in your data table.
 - Soak the paper towel in water and let any excess water drip off the paper towel
 - Take the final mass of the wet paper towel (do not put the wet paper towel directly on the scale)
 - Determine the amount of water the paper towel absorbed (initial mass of paper towel - final mass of wet paper towel) and record in data table.

Hypothesis:

Make predictions as to the outcome of the experiment. Which towel do you believe will be the best purchase and why?

Data:

Create a data table to represent the initial mass of the dry paper towel, final mass of wet paper towel and the total mL of water absorbed by paper towel.

Data

Towel Brand	Cost/Roll	Sheets/Roll	Cost/Sheet	Water Absorbed (mL)	Cost/mL Absorbed

Analysis:

Calculate the cost per mL absorbed for each paper towel brand. Show all work and include units.

Cost/mL of water absorbed = cost per sheet ÷ mL of water absorbed per sheet

Graph: create a bar graph that compares the water absorbed (mL) for each brand. Create another bar graph that shows another parameter that will help you determine the best brand.

Conclusion:

Describe which paper towel you would purchase for your restaurant. Give specific reasons using your data as evidence. Refer back to the purpose of the lab as well as your hypothesis.