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Name _____

Testing Paper Towel Strength

In this experiment you will try to test the dry strength of five types of paper towels. Getting a random sample of towels from each brand would be very difficult on a small budget. Therefore, we assume that all towels of the same brand are pretty much identical.

Each group will need to retrieve five sheets from each of the five paper brands.

Procedure: There will be three people to a group. In your group, one person will serve as the "dropper" and the other two will serve as "holders". The holders should secure all four corners of the towel and stretch it lightly. The dropper will then position the object to be dropped exactly one ruler's length above the (estimated) center of the towel and drop the object.

Record your group's results in the table below.

	Bounty (A)	Green Forest (B)	HEB Premium	Hill Country Fare	Kleenex Viva	Total
Break						
No Break						
Total						

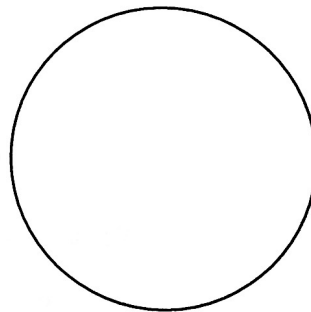
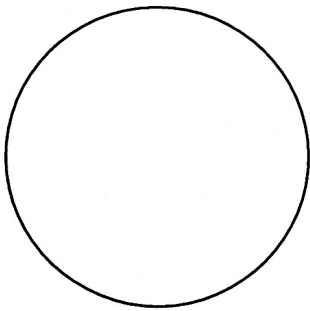
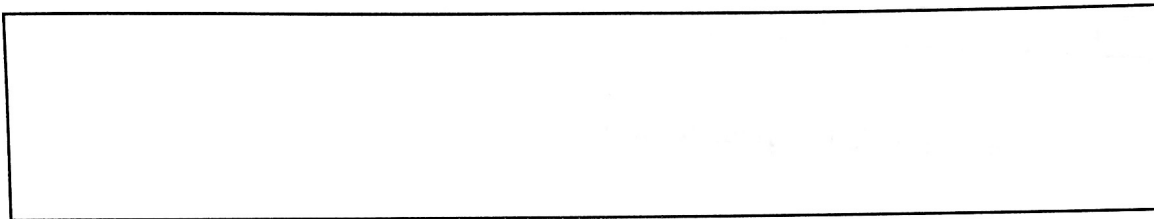
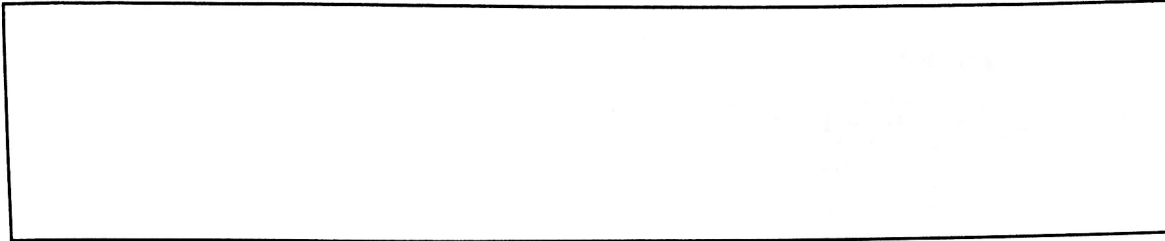
Fill in the totals for your group's data in the margins. (i.e. - complete the marginal distributions) Compute the conditional distribution of brand given that the towels broke and write the proportions next to (or below) the counts above.

Record the data for the whole class in the table below.

	Bounty (A)	Green Forest (B)	HEB Premium	Hill Country Fare	Kleenex Viva	Total
Break						
No Break						
Total						

Fill in the marginal distributions for the class' data. Compute the conditional distribution of brand given that the towels broke and write the proportions next to (or below) the counts above. Compute the conditional distribution of brand given that the towels did not break and write the proportions next to (or below) the counts above.

Use both a pie chart and a segmented bar graph to display the two conditional distributions side-by-side. Note – only do this for the class' data.



Can you make any conclusions about the association between paper towel brand and resistance to breaking?