ANSWER KEY

DO NOT HAND OUT

A PREDICTIONS THAT EARN FULL MARKS

Largest first-drip volume	Accept any prediction with a reason. Test results depend on specific products, square area and water-addition rate.

B VARIABLES

Independent	Paper towel brand: A, B or C.
Dependent	Milliliters of water at the first visible drip in two trials and average volume.
Controlled	Exact sample area, water, addition rate and location, tray, first-drip endpoint and fresh square per trial.

C SAMPLE DATA

Illustrative estimates, not product specifications or guaranteed results. Volumes before the first drip vary with square area, towel construction and addition rate; sample averages use two equal-area trials.

PAPER TOWEL BRAND	WATER BEFORE DRIP (ML)	TRIAL 2 (ML)	AVERAGE (ML)
Brand A	12	**14**	**13**
Brand B	18	**16**	**17**
Brand C	9	**11**	**10**

Arithmetic: Brand A (12+14)/2 = 13 mL; B (18+16)/2 = 17 mL; C (9+11)/2 = 10 mL. Columns all record mL; graph positive averages with zeroLine false. Values describe amount before first drip, not rate.

D MODEL CLAIM, EVIDENCE, REASONING

Claim: In these illustrative trials, Brand B held the most water before the first drip among the three tested brands.
Evidence: Brand B's readings were 18 mL and 16 mL, averaging 17 mL; Brand A averaged 13 mL and Brand C 10 mL.
Reasoning: Fiber structure and the spaces between fibers can affect how much water a sheet holds. This first-drip comparison depends on area and addition rate and does not measure how fast a towel absorbs.

E THINK FURTHER

Repeat each brand with more equal-area squares and compare trial spread to see whether the ranking is consistent.

F QUICK GRADING GUIDE

Require two first-drip volumes and correct means with mL. Accept any evidence-based brand conclusion; sample values are illustrative and cannot establish universal brand performance.