



„Gear up for a statistical adventure with a twist! This crossword isn't just a challenge, but a fun journey through the world of numbers and words. Sharpen your pencils, gather your wits, and let's see who emerges as the puzzle master!“ (Chat GPT)

# Festive Stats Puzzle

For students of Social informatics.

**How to Participate** Print, complete, and submit it in post box no. 82 by Monday, Dec 18.

**Rules** Submit completed puzzles only, one per student. Draw: Dec 19, 3 PM, FDV-26. Winners notified personally or by email.

**Tip** Use your course materials – it's a fun learning challenge!

## Prizes

1 x FDV Power bank

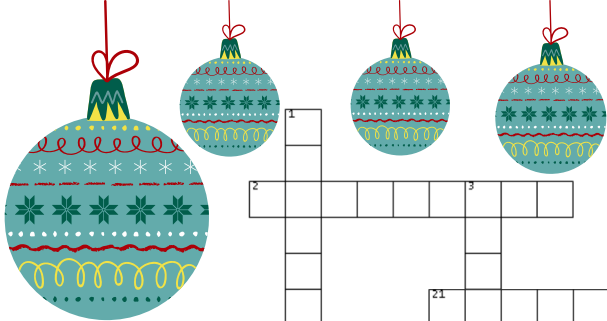
4 x FDV Umbrellas

## DOWN

1. A test for independence in a contingency table.
3. A type of measurement scale.
4. A statistical test used to analyze the differences among group means.
5. A chart showing the relationship between two interval/ratio variables.
6. Distribution of a statistic over many samples.
9. Standard deviation of a sample statistic.
11. The significance level, often set at 0.05.
12. Model fits too well, capturing noise.
13. Same variance across all levels of an independent variable.
14. The process of transforming data to have a mean of 0 and a variance of 1.
15. Difference between the observed value and the mean.
17. Preconditions that must hold true for certain tests.
20. The arithmetic mean of a set of numbers.
22. The position of a value in a list when sorted in ascending order.
25. A value that doesn't change in a model.
27. The constant term in a linear equation.
31. Also known as the dependent variable in a regression model.
32. Abbreviation for a measure used to check multicollinearity.
33. A subset of the population.
35. Probability of correctly rejecting the null hypothesis when it's false.
36. What you do to a null hypothesis if the p-value is too low.

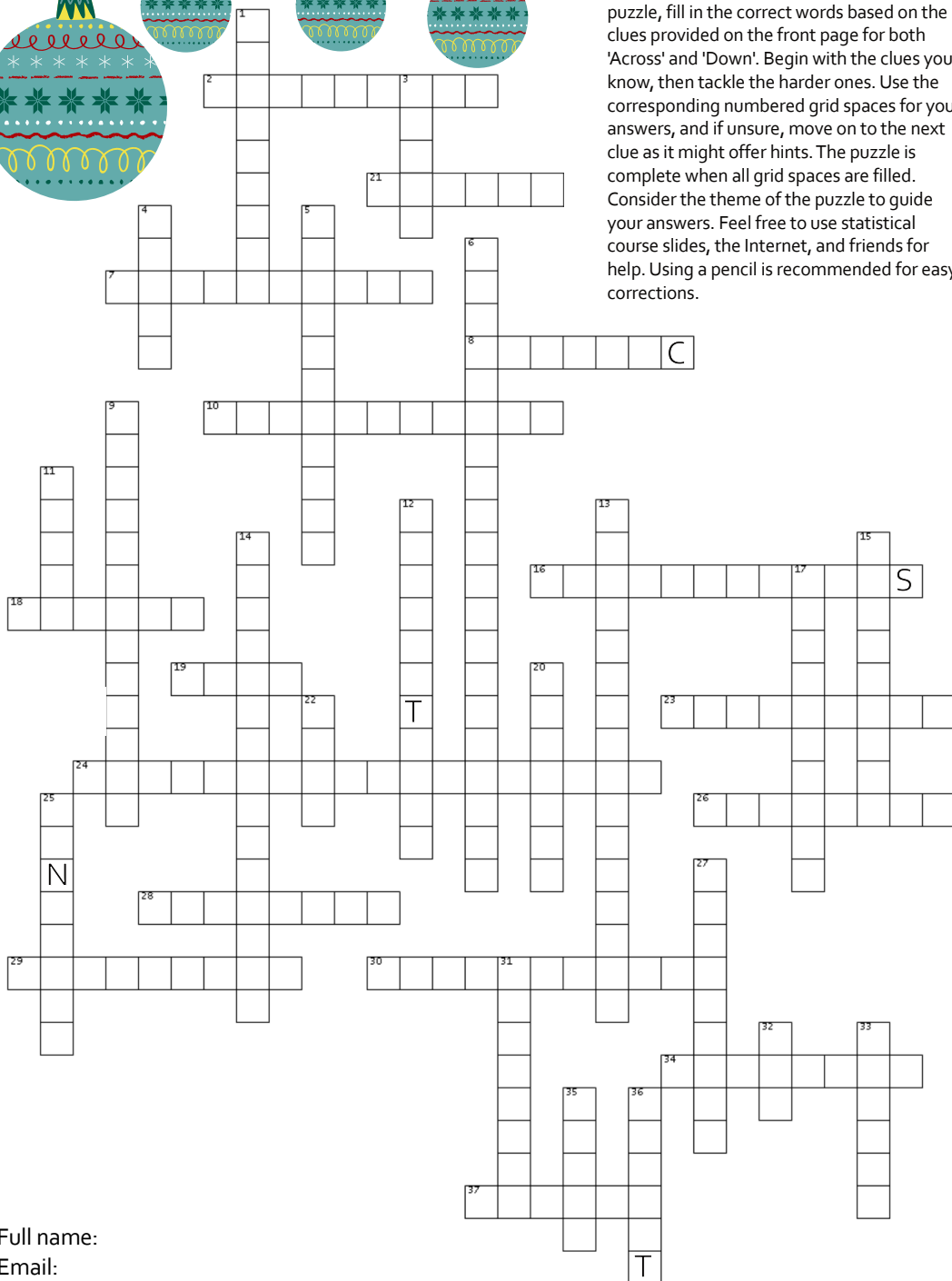
## ACROSS

2. A chart of frequency distribution.
7. A simulation technique using random sampling.
8. Tests conducted after the ANOVA.
10. Measures the strength and direction of a relationship between two variables.
16. Often denoted as SS, it's the sum of squared deviations.
18. An array of numbers.
19. The most frequently occurring value.
21. The man behind many statistical tests.
23. A characteristic of a population.
24. A range that estimates the true population parameter with a given level of confidence.
26. A measure of dispersion.
28. A measure of how far apart two points are in space, e.g. Euclidean.
29. A relationship where one variable directly affects the outcome of another.
30. Not the null, but the other hypothesis.
34. The difference between observed and expected/predicted value.
37. A test to assess the equality of variances.



## INSTRUCTIONS

Print this page and submit in post box no. 82 by Monday, December 18. To solve the puzzle, fill in the correct words based on the clues provided on the front page for both 'Across' and 'Down'. Begin with the clues you know, then tackle the harder ones. Use the corresponding numbered grid spaces for your answers, and if unsure, move on to the next clue as it might offer hints. The puzzle is complete when all grid spaces are filled. Consider the theme of the puzzle to guide your answers. Feel free to use statistical course slides, the Internet, and friends for help. Using a pencil is recommended for easy corrections.



Full name:

Email:

Signature: