



ACADGILD

SESSION 3: STATISTICS (CONTD.)

Assignment 1

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1. Introduction

This assignment will help you understand the concepts learnt in the session.

2. Objective

This assignment will test your skills on the concepts of statistics.

3. Prerequisites

Not applicable.

4. Associated Data Files

Not applicable.

5. Problem Statement

1. As voters exit the polls, you ask a representative random sample of 6 voters if they voted for proposition 100. If the true percentage of voters who vote for the proposition is 55.1%, what is the probability that, *in your sample*, exactly 2 voted for the proposition and 4 did not?

0.122322

2. Professor Willoughby is marking a test.

Here are the students' results (out of 60 points):

20, 15, 26, 32, 18, 28, 35, 14, 26, 22, 17

Most students didn't even get 30 out of 60, and most will fail.

The test must have been really hard, so the Prof decides to standardize all the scores and only fail people 1 standard deviation below the mean. So who will fail?

6. Expected Output

**The students who received scores 14 and 15 will fail the exam.
They were -1.2 and -1.35 standard deviations below the mean.**

N/A

7. Approximate Time to Complete Task