

Name \_\_\_\_\_

## Data Detective: How AI Uses Information

AI learns from data. Data can be numbers, words, images, or other information. By studying data, AI can find patterns and make predictions. But sometimes the data may be incomplete, unfair, or misleading. That can cause problems with the results.

Today, you will act as a **Data Detective**. Look at the dataset below and answer the questions.

### Dataset: Student Test Scores

Student	Gender	Hours Studied	Test Score
Alex	M	2	65
Brianna	F	5	92
Carlos	M	4	88
Dana	F	1	60
Ethan	M	3	75
Fatima	F	6	95



1. Pattern Hunt: What pattern do you notice between hours studied and test scores?
2. AI Use: If an AI studied this dataset, what prediction might it make about a student who studies for 5 hours?
3. Bias Check: Why would it be a mistake for AI to assume that one gender is automatically better at tests than the other?
4. Data Gaps: If AI only studied this small dataset, what problems might happen when predicting scores for new students?
5. Better Data: What kind of extra information could we add to make the predictions more fair or accurate?