Name _____

Inside the Mind of an AI

Imagine teaching a robot how to recommend the perfect pizza. At first, the robot needs **training data**: examples of hundreds of pizza orders and customer reviews. This shows it which toppings people usually pair together, and what combinations are popular.

Next comes the **algorithm**. Think of this as the recipe the robot follows to make sense of the pizza data. It looks at patterns like "people who like mushrooms often also like olives."

From this, the robot develops a **model** - like its decision-making brain. Now, if you tell it, "I want a pizza with cheese and spinach," the model can predict which other toppings you might enjoy, based on what it has learned.

But no robot is perfect. That's why the **feedback loop** is so important. If you try the recommended pizza and give it a thumbs-down, the system uses that correction to improve its next suggestion.

The **output**: the robot's recommendation, such as "You might enjoy cheese, spinach, and tomato pizza!" The output is what you actually see or use, and it changes depending on the input and what the model has learned.

Match the Component to Its Role- Math the letter to each component.

_____ 1.Training Data

_____ 2.Algorithm

_____ 3.Model

_____ 4.Feedback Loop

_____ 5.Output

Roles

A. The "brain" of the AI that uses what it has learned to make predictions.
B. Corrections or ratings that guide the system to get better over time.
C. The step-by-step method the AI uses to analyze and learn from examples.
D. The results or actions the system produces, such as a prediction or recommendation.
E. The large collection of examples that provides patterns for the AI to learn from.

Reflection - Think of another system (like a streaming service recommending movies, a smart assistant answering questions, or an app that predicts the weather). In 3-4 sentences, explain what the **training data**, **algorithm**, **model**, **feedback loop**, and **output** would look like in that system.