

Name _____

Ranking Task - From Simple to Complex Agents

Not all AI agents are created equal. Some are **simple**, following a few basic rules and reacting only to what they sense right now. Others are **complex**, combining sensors, memory, planning, reasoning, and even learning from past mistakes.

By ranking agents from simplest to most complex, we can better understand what makes an AI system more advanced. Simpler agents often react quickly but lack flexibility. More complex agents can solve harder problems, but they require more design, data, and power.

In this activity, you will rank 8 different AI agents. There is no single "perfect" order, but you should think carefully about how much **perception**, **reasoning**, and **learning ability** each one has.

Directions - Read the list of 8 agents below. Rank them from **simplest (1)** to **most complex (8)**. Write 1-2 sentences explaining why you placed each agent where you did.

Agents to Rank

_____ Spam Filter - blocks junk emails by checking for keywords, suspicious links, or sender reputation.

_____ Chatbot (Customer Service) - answers questions using pre-programmed scripts and language models.

_____ Recommendation System (e.g., Netflix or Spotify) - suggests movies, songs, or products based on data patterns.

_____ Smart Thermostat - senses room temperature and switches heating or cooling on/off.

_____ Self-Driving Car - detects surroundings, plans routes, and reacts to other cars and pedestrians.

_____ Mars Rover - explores another planet, navigating rocks, sending data, and making limited autonomous choices.

_____ Vacuum Robot - uses bump sensors and simple mapping to clean rooms.

_____ Personal Voice Assistant (e.g., Siri, Alexa) - listens to voice commands, interprets them, and connects to apps or devices.

