

Name _____

Ranking Task - From Simple to Complex Agents Answer Key

<u>Rank</u>	<u>Agent</u>	<u>Reasoning</u>
1 (Simplest)	Smart Thermostat	Very basic rule-based agent: senses only temperature and switches heating/cooling on or off. No planning or learning.
2	Spam Filter	A bit more advanced: classifies text using patterns and keywords, but still narrow and rule/data-based.
3	Vacuum Robot	Uses sensors to avoid obstacles and sometimes simple mapping, but limited reasoning and no deep planning.
4	Recommendation System	Processes lots of data and compares patterns across many users. More complex than a vacuum, but still focused on a single type of task.
5	Chatbot (Customer Service)	Interacts with humans in natural language, which requires more reasoning and flexibility than pattern-matching alone.
6	Personal Voice Assistant (Siri, Alexa)	Can handle voice recognition, connect to apps, answer questions, and control devices. More versatile than a chatbot.
7	Mars Rover	Operates in a harsh, unpredictable environment, requires navigation, communication, and some autonomy. Much more complex than home-based systems.
8 (Most Complex)	Self-Driving Car	Constantly perceives surroundings, plans routes, reacts in real time to dynamic environments, and makes life-critical decisions. Requires advanced sensing, reasoning, and sometimes learning.