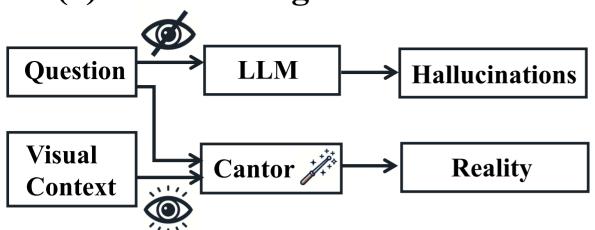# (a) Determining Hallucinations

What is the highest amount this class measures?

GPT-3.5 (wihout visual context)

LLM: Could you provide more details about 'this class' and the measurements? Is it about math, physics, programming, or something else?
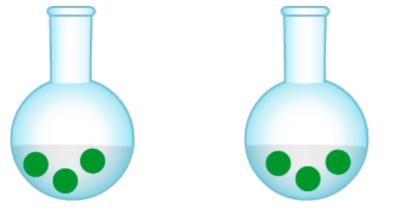
Cantor (with caption)

Caption: It shows a glass beaker filled with red liquid. It's labeled with capacity, glass type ......

Cantor (LLM): The aim is to find the beaker's max volume in the image, requiring VisionIQ Analyst to spot the beaker's max volume mark.

Cantor (with image)

Cantor (MLLM): The beaker's max volume, marked at the top scale, requires identification by the VisionIQ Analyst.

(b) Perception or Cognition

Which solution has a higher concentration of green particles?

Solvent volume: 20 mL   Solvent volume: 20 mL

Solution A   Solution B

Low-level Specialized Perception Tool

Question: Green particles in Solution A.
Detector: (0.2, 0.3), (0.4, 0.5)

Question: Green particles in Solution B.
Detector: (0.2, 0.3), (0.4, 0.5), (0.6, 0.7), (0.1, 0.2)

High-level General Cognitive Expert

Question: Which solution has more particles?
ObjectQuant Locator (MLLM): The number of green particles in both solutions is the same.