



## The IDEA Agent

**Memories:** (Starts with initial observations)  
1, There are 13 paintings in the room: 4 blue, 6 red, and 3 green.  
2, The **Door** has a 3 digit password.  
3, The **Notebook** says the password is related to the paintings.

**Goal:** Decipher the password of the **Door**.

**Hypothesis**

**Plan**

Abduction

### New Hypothesis:

The password is the number of all the paintings.

Deduction

### New Plan:

Input 013 into the **Door**. If my hypothesis is correct, 013 will open the **Door**.

Action

## RULEARN: The escape room

**Goal:** Decipher the password of the **Door**.

**Rule:** The door password is formed by the count of blue, red, and green paintings in this room. Three failed attempts will reset the code.

### Interactive objects



**Notebook**



**Door**

...



**Paint**

Update Memory

**New Observation:** I input 013 into the **Door**, and was notified that only the third digit is correct.

Feedback

Induction

**Refined hypothesis:** The third digit represents the number of blue paintings, while the first and second digits may represent the counts of other colors.

Deduction

**Refined Plan:** Input 463 into the **Door** if my hypothesis is correct, 463 might open, if not, try 643.

Action

The reasoning loop

### Action space

Action 1: Input code to the **Door**.  
Action 2: Open **Door** with brute force.  
Action 3: Read the **Notebook**.  
...  
Action n: Investigate **Paint**.