### **Functional Testing**

* **Writing Functionality:**
  + Test if the pencil can write legibly on different surfaces (paper, cardboard, whiteboard).
  + Check the consistency of the writing stroke.
  + Verify the pencil's ability to produce different line thicknesses.
* **Eraser Functionality:**
  + Test the eraser's ability to effectively remove pencil marks from different surfaces.
  + Evaluate the eraser's durability and its resistance to wear and tear.
  + Check if the eraser leaves any blur.

### **Usability Testing**

* **Grip Comfort:**
  + Assess the comfort of the pencil's grip for various hand sizes and shapes.
  + Ensure the pencil's weight and balance are suitable for usage.
* **Ease of Sharpening:**
  + Test the pencil's compatibility with different sharpeners.
  + Verify the ease of sharpening and the quality of the sharpened tip.
* **Visibility:**
  + Check the visibility of the pencil's lead and eraser under different lighting conditions.

### **Performance Testing**

* **Writing Endurance:**
  + Test the pencil's ability to write continuously for extended periods without breaking or losing its shape.
  + Measure the pencil's lead consumption rate.
* **Erasure Efficiency:**
  + Evaluate the eraser's effectiveness in removing pencil marks with varying pressure and strokes.
  + Measure the eraser's wear rate.

### **Load Testing**

* **Weight Capacity:**
  + Determine the maximum weight the pencil can withstand without breaking.
* **Pressure Tolerance:**
  + Test the pencil's ability to withstand pressure applied during writing and erasing.

### **Stress Testing**

* **Pressure Extremes:**
  + Test the pencil's performance in extreme pressure.
  + Check for any changes in the pencil's properties (e.g., lead hardness, eraser effectiveness).

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**Types of suggestions are:**

**Based on User Behavior:** These suggestions are tailored to the individual user based on their previous browsing history, search queries, clicks, and purchase patterns.

**Browsing History:** Products the user has viewed recently are displayed as suggestions to bring the user back to items they showed interest in.

**Cart or Wishlist Items:** Items related to or complementary to the products already in the user’s cart or wishlist are suggested.

**Rule for suggestions**:

**User History**: The platform tracks individual user interactions to display relevant products.

**Session-Based Recommendations**: If a user is navigating through specific categories, the system will prioritize recommendations within that category during the current session.

**Past Purchases**: Recommending products that complement or are compatible with items already purchased by the user.