Exercise 24:

**Steps:**

1. **Create a conflict graph:**
   * Each subject is a vertex.
   * An edge is drawn between two vertices (subjects) if they cannot be tested together.

Based on the problem statement, the following conflicts exist:

* + ABC (A, B, C cannot be together)
  + AE (A, E cannot be together)
  + BCD (B, C, D cannot be together)
  + BHI (B, H, I cannot be together)
  + EFG (E, F, G cannot be together)
  + EI (E, I cannot be together)
  + GHI (G, H, I cannot be together)

1. **Represent the graph:** From the conflicts, we have edges between:
   * A ↔ B, A ↔ C, A ↔ E
   * B ↔ C, B ↔ D, B ↔ H, B ↔ I
   * C ↔ D
   * E ↔ F, E ↔ G, E ↔ I
   * F ↔ G
   * G ↔ H, G ↔ I
   * H ↔ I
2. **Graph coloring:** Now we need to color the graph with the minimum number of colors, where each color represents a session.

Here’s a possible arrangement using greedy graph coloring (subject to conflicts):

**Session 1:**

* A (Conflicts: B, C, E)

**Session 2:**

* B (Conflicts: A, C, D, H, I)
* F (Conflicts: E, G)

**Session 3:**

* C (Conflicts: A, B, D)
* G (Conflicts: E, F, H, I)

**Session 4:**

* D (Conflicts: B, C)
* H (Conflicts: B, G, I)

**Session 5:**

* E (Conflicts: A, F, G, I)
* I (Conflicts: B, E, G, H)

**Final Answer:**

The minimum number of sessions required is **5**.

The subjects are scheduled in the following sessions:

* Session 1: A
* Session 2: B, F
* Session 3: C, G
* Session 4: D, H
* Session 5: E, I