

Lesson 91: Elevens Lab #4 (W31D4)

Balboa High School

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- Take out the HW to be checked: Questions 1–3 on [p27](#)
- Prepare for Activity 9 (pp29-31):
 - remove Activity04 from build path, add Activity09 as source folder
 - download and complete [MakeAllGroups.java](#)

Students will reinforce OO programming principles and practice various tasks in Java via the College Board's *Elevens Lab*.

Activity 8 Questions

Solutions:

1a: Similarities between Elevens, Thirteens, & Tens:

- They are all single player games.
- They are all played on a board with cards.
- The cards are selected for removal based on one of two rules:
 - the cards' point values add up to a specific sum, or
 - there is a specific group of face cards.

Activity 8 Questions

Solutions:

1b: Differences between Elevens, Thirteens, & Tens:

- The number of cards on the board is different.
- The sums differ.
- The specific groups of face cards differ.

Solutions:

- 2: `ElevensBoard()` passes to `Board()` the information needed to initialize the instance variables declared in the abstract `Board` class. This is accomplished through the following use of `super`:
`super(BOARD_SIZE, RANKS, SUITS, POINT_VALUES);`

Solutions:

- 3: No. The abstract methods will have to be implemented differently in the Tens and Thirteens games and will need different private helper methods to accomplish their tasks.

Pre-Activity 9: MakeAllGroups

- Making all possible pairs and triples is necessary logic for implementing helper methods `containsPairSum11()` and `containsJQK()` in `ElevensBoard`
- Let's discuss `MakeAllGroups...`

Activity 9: ElevensBoard

Work on Activity 9 (pp29-31)

- We'll take the remainder of this class and next to finish ElevensBoard
- For `containsPairSum11()` & `containsJQK()`, it's **not** reasonable for these methods to assume the parameter refers to just 2 or 3 cards. For example, indices for *all* remaining cards on the board might be sent to these methods. (Why?)
- For debugging purposes, have helper methods print the cards being checked and results (e.g., *cards sum to 11* or *JQK triple found*)

Feeling behind? Spend some time continuing to work on Activity 9 so that you'll be more likely to finish next class.