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### Section 3.3

3.

- a. CACC: {TFF, FTF, FFT, FFF}
- b. Yes.
- c. EC Test Set: {TTT, FTT, FFT, FFF}

### Section 4.1

2.

- a. Characteristics:
  - i. Number of occurrences of Object X
  - ii. Pushing Object X results in stack overflow
- b. Blocks:
  - i.
    - 1. None
    - 2. At minimum one
  - ii.
    - 1. Stack overflow occurs
    - 2. Stack overflow does not occur
- c. Block Values:
  - i. Number of occurrences of Object X
    - 1. == 0
    - 2. >=1
  - ii. Pushing Object X results in stack overflow
    - 1. True
    - 2. False

### Section 4.2

4.

- a. **Yes.** There can be no other value given to set 's1' which does not fall into the given characteristics.
- b. **Yes.** There can be no other value given to set 's1' which does not fall into more than one given characteristic.
- c. **Yes.** The only exception is if either 's1' or 's2' or both sets are null, but is handled by the edge case described in the method signature comments.
- d. **No.** Counterexample: 's1' and 's2' are the empty sets. The characteristics "s1 and s2 represent the same set" and "s1 and s2 do not have any elements in common" both satisfy the input when 's1' and 's2' are both empty sets.
- e. **Base choice coverage:**  $1 + 3 + 3 = 7$