Basic Java Syntax - Example Program

```java
// To run:
// 1. View -> Tool Windows -> Terminal
// 2. In Terminal window, type:
//     java -cp out/production/WordPalindrome PalindromeChecker

/*
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 * date: 4/21/2019
 * */

import java.util.Scanner;

public class PalindromeChecker {
  private static final String WHITESPACE_PATTERN = "\\s+";
  private String[] words;

  public PalindromeChecker(String s) {
    words = clean(s).split(WHITESPACE_PATTERN);
  }

  private String clean(String s) {
    return s.toLowerCase().trim();
  }

  boolean isPalindrome() {
    int last = words.length - 1;

    for (int i = 0; i < last - i; i++) {
      String word1 = words[i];
      String word2 = words[last - i];
      if (!word1.equals(word2)) {
        return false;
      }
    }
    return true;
  }

  private String generateResultMessage() {
    return isPalindrome() ?
        "It is a word palindrome!" :
        "It is NOT a word palindrome";
  }

  public static void main(String[] args) {
    Scanner scanner = new Scanner(System.in);
    System.out.println(
        "Type a phrase to see if it is a word-level palindrome. " +
            "Press Ctrl-D to end.");

    while (scanner.hasNextLine()) {
      PalindromeChecker checker = new PalindromeChecker(scanner.nextLine());
      System.out.println(checker.generateResultMessage());
    }

    System.out.println("Goodbye!");
  }
```

}

Questions:

1. What does it mean that the WHITESPACE_PATTERN field has been declared *static*?

2. What does it mean that WHITESPACE_PATTERN has been declared *final*?

3. How many constructors does the PalindromeChecker class have?

4. What does it mean that the clean method has been declared *private*?

5. What is the scope of the isPalindrome method?

6. Can the signature of the main method be changed?

7. Which class methods do not take any parameters?

8. Which class methods do not declare any local variables?

9. How many PalindromeChecker objects will be created when the program executes?

10. Translate the body of generateResultMessage into an if-then statement.

11. What does clean(s).split(WHITESPACE_PATTERN) in PalindromeChecker accomplish?

12. What method is used to print to standard output?

13. What is the scope of variable i in the isPalindrome method?

14. Translate the for loop from isPalindrome into English.