Write a Java program that:

1. Prompts the user to enter a positive integer.
2. Validates the input (must be a positive integer; if not, display an error and exit).
3. Determines if the number is a prime number.
4. Counts the number of digits in the number.
5. Calculates the sum of all digits.
6. Identifies and prints each digit (from left to right) along with whether it is even or odd.
7. Uses at least one `for` loop, one `while` or `do-while` loop, and one `if` or `switch` statement.
8. Uses `Math` class methods where appropriate (e.g., for square root in prime check).
9. Uses `System.out.printf` to format the output neatly.