Develop a java code to reverse and add a number until you get a palindrome

CODE:

import java.util.Scanner;

public class ReverseAndAddPalindrome {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number: ");

int num = scanner.nextInt();

scanner.close();

int reverse;

int originalNum = num;

int iterations = 0;

while (true) {

reverse = reverseNumber(num);

iterations++;

if (reverse == num) {

System.out.println("Palindrome found after " + iterations + " iterations: " + num);

break;

} else {

System.out.println(num + " + " + reverse + " = " + (num + reverse));

num = num + reverse;

}

}

}

public static int reverseNumber(int num) {

int reversed = 0;

while (num != 0) {

int digit = num % 10;

reversed = reversed \* 10 + digit;

num /= 10;

}

return reversed;

}

}

OUTPUT:

C:\javap>javac ReverseAndAddPalindrome.java

C:\javap>java ReverseAndAddPalindrome

Enter a number: 7325

7325 + 5237 = 12562

12562 + 26521 = 39083

39083 + 38093 = 77176

77176 + 67177 = 144353

144353 + 353441 = 497794

Palindrome found after 6 iterations: 497794

