

```

import java.math.BigInteger;
import java.util.Scanner;

public class NumberTrans {
    public static void main(String[] args) {

        String flg = "Y";
        Scanner object = new Scanner(System.in);
        do {
            System.out.println("Enter the N");
            long N = object.nextLong();
            System.out.println("Enter P. P should be less than or equal to
the length of the N");
            int P = object.nextInt();
            if (P > String.valueOf(N).length()) {
                System.exit(1);
            }

            System.out.println("Enter D");
            int D = object.nextInt();

            long digit = getLastDigit(N, P);

            long temp = 0;

            if (digit >= 0 && digit <= 4) {
                // Example 1
                // If the P_th digit of N from the right is from 0 to 4,
add D to it.
                // Replace the P_th digit by the units digit of the sum.
                // Then, replace all digits to the right of the P_th digit
by 0.
                temp = digit + D;
                long lastDigit = getLastDigit(temp, 1);
                N = replaceDigit(N, P, lastDigit);
            } else {
                // Example 2
                // If the P_th digit of N from the right is from 5 to 9,
subtract D from it.
                // Replace the P_th digit by the leftmost digit of the
absolute value of the
                // difference.
                // Then, replace all digits to the right of the P_th digit
by 0.

                temp = Math.abs(digit - D);

                long firstDigit =
Long.parseLong(String.valueOf(temp).substring(0, 1));
                N = replaceDigit(N, P, firstDigit);
            }
        }

        System.out.println("Transformed N is : " + N);
    }
}

```

```

        System.out.println(" Do you want to continue? Enter Y for yes and
N for No ");
        flg = object.next();

    }while (flg.equalsIgnoreCase("Y"));

}

public static long getLastDigit(long number, int pos) {
    long digit = 0;
    for (int i = 0; i < pos; i++) {
        digit = number % 10;
        number = number / 10;
    }
    return digit;
}

static long replaceDigit(long x, int d1, long d2) {
    long result = 0;
    String returnString = "";
    String str = String.valueOf(x);

    String s1 = str.substring(0, str.length() - d1);
    String s2 = str.substring(str.length() - d1 + 1, str.length());
    returnString = s1 + d2;

    for (int i = 0; i < s2.length(); i++) {
        returnString = returnString + "0";
    }

    if (returnString.length() > 0) {
        result = Long.parseLong(returnString);
    }

    return result;
}
}

```