Easy

1. Java 1D Array
   https://www.hackerrank.com/challenges/java-1d-array-introduction/problem

Sample Input

```
5
10
20
30
40
50
```

Sample Output

```
10
20
30
40
50
```

```java
import java.util.*;

public class Solution {

    public static void main(String[] args) {

        Scanner scan = new Scanner(System.in);
        int n = scan.nextInt();

        int[] a = new int[n];
        for(int i = 0; i < n; i++){
            int num = scan.nextInt();
            a[i] = num;
        }

        scan.close();

        // Prints each sequential element in array a
        for (int i = 0; i < a.length; i++) {
            System.out.println(a[i]);
        }
    }
}
```

2. Java Stdin and Stdout I
   https://www.hackerrank.com/challenges/java-stdin-and-stdout-1/problem

Input Format

There are **3** lines of input, and each line contains a single integer.

Sample Input

```
42
100
125
```

Sample Output

```
42
100
125
```

```java
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        Scanner scan = new Scanner(System.in);
        int a = scan.nextInt();
        int b = scan.nextInt();
        int c = scan.nextInt();
        // Complete this line
        // Complete this line

        System.out.println(a);
        System.out.println(b);
        System.out.println(c);
        // Complete this line
        // Complete this line
    }
}
```

3. Java Inheritance I
   https://www.hackerrank.com/challenges/java-inheritance-1/problem

```
1. import java.io.*;
2. import java.util.*;
3. import java.text.*;
4. import java.math.*;
5. import java.util.regex.*;
6. 
7. class Animal{
8.     void walk()
9.     {
10.         System.out.println("I am walking");
11.     }
12. }
13. class Bird extends Animal
14. {
15.     void fly()
16.     {
17.         System.out.println("I am flying");
18.     }
19. 
20.     void sing(){
21.         System.out.println("I am singing");
22.     }
23. }
24. 
25. public class Solution{
26. 
27.    public static void main(String args[]){
28. 
29.       Bird bird = new Bird();
30.       bird.walk();
31.       bird.fly();
32.       bird.sing();
33. 
34.    }
35. }
```

4. Java Currency Formatter
   https://www.hackerrank.com/challenges/java-currency-formatter/problem

Sample Input

```
12324.134
```

Sample Output

```
US: $12,324.13
India: Rs.12,324.13
China: ¥12,324.13
France: 12 324,13 €
```

```java
import java.io.*;
import java.util.*;
import java.text.*;
import java.math.*;
import java.util.regex.*;

public class Solution {

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        double payment = scanner.nextDouble();
        scanner.close();

        // Write your code here.
        Locale indiaLocale = new Locale("en", "IN");

        NumberFormat us = NumberFormat.getCurrencyInstance(Locale.US);
        NumberFormat india = NumberFormat.getCurrencyInstance(indiaLocale);
        NumberFormat china = NumberFormat.getCurrencyInstance(Locale.CHINA);
        NumberFormat france = NumberFormat.getCurrencyInstance(Locale.FRANCE);

        System.out.println("US: " + us.format(payment));
        System.out.println("India: " + india.format(payment));
        System.out.println("China: " + china.format(payment));
        System.out.println("France: " + france.format(payment));
    }
}
```

5. Java Abstract Class
   https://www.hackerrank.com/challenges/java-abstract-class/problem

Sample Input

```
A tale of two cities
```

Sample Output

```
The title is: A tale of two cities
```

```java
import java.util.*;
abstract class Book{
    String title;
    abstract void setTitle(String s);
    String getTitle(){
        return title;
    }

}

//Write MyBook class here
class MyBook extends Book{
    void setTitle(String s){
        title = s;
    }
}

public class Main{

    public static void main(String []args){
        //Book new_novel=new Book(); This line prHMain.java:25: error: Book is abst
    ract; cannot be instantiated
        Scanner sc=new Scanner(System.in);
        String title=sc.nextLine();
        MyBook new_novel=new MyBook();
        new_novel.setTitle(title);
        System.out.println("The title is: "+new_novel.getTitle());
        sc.close();

    }
}
```

6. Java Loops I
   https://www.hackerrank.com/challenges/java-loops-i/problem

Sample Input

```
2
```

Sample Output

```
2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20
```

```java
import java.io.*;
import java.math.*;
import java.security.*;
import java.text.*;
import java.util.*;
import java.util.concurrent.*;
import java.util.regex.*;

public class Solution {


    private static final Scanner scanner = new Scanner(System.in);

    public static void main(String[] args) {
        int N = scanner.nextInt();

        for(int x = 1; x <= 10; x++){
            int Hasil = N * x;
            System.out.println(N +" x "+ x +" = "+ Hasil);
        }

        scanner.skip("(\r\n|[\n\r\u2028\u2029\u0085])?");

        scanner.close();
    }
}
```

7. Java String Reverse
   https://www.hackerrank.com/challenges/java-string-reverse/problem

Sample Input

```
madam
```

Sample Output

```
Yes
```

```java
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {

        Scanner sc=new Scanner(System.in);
        String A=sc.next();
        /* Enter your code here. Print output to STDOUT. */

        String B = "";
        for(int i = A.length() - 1; i >= 0; i--){
            B = B + A.charAt(i);
        }

        if(A.equals(B)){
            System.out.print("Yes");
        }else{
            System.out.print("No");
        }

    }
}
```

8. Valid Username Regular Expression
   https://www.hackerrank.com/challenges/valid-username-checker/problem

Sample Input 0

```
8
Julia
Samantha
Samantha_21
1Samantha
Samantha?10_2A
JuliaZ007
Julia@007
_Julia007
```

Sample Output 0

```
Invalid
Valid
Valid
Invalid
Invalid
Valid
Invalid
Invalid
```

```java
import java.util.Scanner;
class UsernameValidator {
    /*
     * Write regular expression here.
     */
    public static final String regularExpression = "^[a-zA-Z][\\w]{7,29}$";
}

public class Solution {
    private static final Scanner scan = new Scanner(System.in);

    public static void main(String[] args) {
        int n = Integer.parseInt(scan.nextLine());
        while (n-- != 0) {
            String userName = scan.nextLine();

            if (userName.matches(UsernameValidator.regularExpression)) {
                System.out.println("Valid");
            } else {
                System.out.println("Invalid");
            }
        }
    }
}
```

Medium

1. Java MD5
   https://www.hackerrank.com/challenges/java-md5/problem

Sample Input 0

```
HelloWorld
```

Sample Output 0

```
68e109f0f40ca72a15e05cc22786f8e6
```

Sample Input 1

```
Javarmi123
```

Sample Output 1

```
2da2d1e0ce7b4951a858ed2d547ef485
```

```java
import java.io.*;
import java.util.*;
import java.security.*;

public class Solution {

    public static void main(String[] args) throws NoSuchAlgorithmException {
        /* Enter your code here. Read input from STDIN. Print output to STDOUT. You
    r class should be named Solution. */
        Scanner scan = new Scanner(System.in);

        String word = scan.nextLine();

        MessageDigest md = MessageDigest.getInstance("MD5");
        byte[] hashInBytes = md.digest(word.getBytes());

        StringBuilder sb = new StringBuilder();
        for(byte b : hashInBytes){
            sb.append(String.format("%02x", b));
        }

        System.out.println(sb.toString());

    }
}
```