1. Create two integer variable and do basic arithmetic operations and print the values

```
public class Ex1
{

	public static void main(String[] args)
	{
		int num1, num2, add, sub, mul, div;
		num1 = 5;
		num2 = 5;
		add= num1 + num2;
		sub= num1 - num2;
		mul= num1*num2;
		div= num1/num2;
		System.out.println("Addition: "+add);
		System.out.println("Subraction: "+sub);
		System.out.println("Multiplication: "+mul);
		System.out.println("Division: "+div);

	}

}
```

2. Create a variable called dna and store “ATACGATACAA”, print dn

```
public class Ex1_2
{

	public static void main(String[] args)
	{
		String dna="ATACGATACAA";
		System.out.println(dna);

	}

}
```

3. Create a class list of variables with names of amino acid and store the molecular weights &prints amino acid & its length (we’ll extend this problem with loops for calculating mW with help of arrays)

```
public class Ex1_3
```

```
{
	public static void main(String[] args)
	{
		int[] mw =
{89,174,132,133,121,146,75,155,131,131,146,149,165,115,105,119,204,181,117};
		String[] aa = {"Alanine","Arginine","Asparagine","Aspartic
acid","Cysteine","Glutamine","Glycine","Histidine","Isoleucine","Leucine","Lysine","Methionine"
,"Pheylalanine","Proline","serine","Threonine","Tryptophan","Tyrosine","Valine"};
		System.out.println("Aminoacid and its Molecular weight");
		for(int i=0; i< aa.length;i++)
		{
			System.out.println(aa[i] +":" +mw[i]);
		}
	}
}
```

4. Create a class two variables called dna1 & dna2 and concatenate them

```
public class Ex1_4
{

	public static void main(String[] args)
	{
		String dna1 = "ACGTTTAGCTCCGAT";
		String dna2 = "AATTCCGGCCTTAACCGG";
		String DNA;
		DNA = dna1.concat(dna2);
		System.out.println("DNA1: " +dna1);
		System.out.println("DNA2: " +dna2);
		System.out.println("Concated DNA Sequence: " +DNA);
	}

}
```

5. Create a class with 5 subject and calculate the % and if the % is above 50- print pass

```
import java.util.Scanner;
public class Ex1_5
{

	public static void main(String[] args)
	{
```

```
        float eng, phy, chem, math, bio;
     double total, average, percentage;
    Scanner m =new Scanner(System.in);
    System.out.println("Enter marks of five subjects");
    System.out.print("Enter marks of English:");
    eng=m.nextFloat();
    System.out.print("Enter marks of physics:");
    phy=m.nextFloat();
    System.out.print("Enter marks of chemistry:");
    chem=m.nextFloat();
    System.out.print("Enter marks of maths:");
    math=m.nextFloat();
    System.out.print("Enter marks of Biology:");
    bio=m.nextFloat();


    total = eng + phy + chem + math + bio;
    average = (total / 5.0);
    percentage = (total / 500.0) * 100;


    System.out.println("Total marks ="+total);
    System.out.println("Average marks = "+average);
    System.out.println("Percentage = "+percentage);
    if(percentage>=50)
    {
        System.out.println("Pass");
    }

  }

}
```

6. Print Fibonacci series till 50 (n=50 start with 0)

```
import java.util.Scanner;
public class Ex1_6
{

    public static void main(String[] args)
    {
        int n,i,f1=0,f2=1,temp;
```

```
        Scanner m=new Scanner(System.in);
        System.out.println("Series till which term: ");
        n =m.nextInt();
        for(i=1;i<=n;i++)
        {
                System.out.print(f1 +",");
                temp = f1 + f2;
           f1 = f2;
           f2 = temp;
        }

    }
```

7. Create an double array of element & find its average

```
import java.util.*;
public class Ex1_7
{

    public static void main(String[] args)
    {
        Scanner m=new Scanner(System.in);
        System.out.println("Enter the number of elements:");
        int n=m.nextInt();
        double a[]= new double[n];
        int i;double average;
        double sum=0;

        for(i=0;i<n;i++)
        {
                System.out.println("Enter the arrary values a["+i +"]:");
                a[i] =m.nextDouble();
        }
        for(i=0;i<n;i++)
        {
                sum= sum+a[i];
        }
        average=sum/n;
        System.out.println("Average value:" +average);
    }
```

```
}
```

8. Create a string array with 20 amino acids and print them in alphabetical order (hint; use sort())

```
import java.util.Arrays;
import java.util.*;
public class Ex1_8
{

	public static void main(String[] args)
	{
		String[] aa =
{"Glycine","Histidine","Isoleucine","Leucine","Lysine","Alanine","Arginine","Asparagine","Aspart
ic
acid","Cysteine","Glutamine","Methionine","Pheylalanine","Proline","serine","Threonine","Tryp
tophan","Tyrosine","Valine"};
		Arrays.sort(aa);
		System.out.println(Arrays.toString(aa));
		Arrays.sort(aa, Collections.reverseOrder());
		System.out.println(Arrays.toString(aa));
	}

}
```