

13. METHOD OVERLOADING

1.

```
class Adder
{
    static int add(int a,int b)
    {
        return a+b;
    }
    static int add(int a,int b,int c)
    {
        return a+b+c;
    }
}
class Excercise1
{
    public static void main(String[] args)
    {
        System.out.println(Adder.add(11,11));
        System.out.println(Adder.add(11,11,11));
    }
}
```

Output-

22

33

2.

```
class Adder
{
    static int add(int a,double b)
    {
        return (int)(a+b);
    }
    static int add(int a,int b,int c)
    {
        return a+b+c;
    }
}
class Excercise2
{
    public static void main(String[] args)
    {
        System.out.println(Adder.add(11,11.5));
        System.out.println(Adder.add(11,11,11));
    }
}
```

Output-

22

33

3.

We cannot define two methods with the same name and same number of parameters of same type.

```
class Adder
{
    static int add(int a,int b)
    {
        return a+b;
    }
    static int add(int a,int b)
    {
        return a+b;
    }
}
class Excercise3
{
    public static void main(String[] args)
    {
        System.out.println(Adder.add(11,11));
        System.out.println(Adder.add(11,11));
    }
}
```

Output-

error: method add(int,int) is already defined in class Adder
static int add(int a,int b)
 ^

4.

```
class Adder
{
    static int add(int a,double b)
    {
        return (int)(a+b);
    }
    static int add(int a,int b)
    {
        return a+b;
    }
}
class Excercise4
{
    public static void main(String[] args)
    {
        System.out.println(Adder.add(11,11.5));
        System.out.println(Adder.add(11,11));
    }
}
```

Output-

22

22

5.

We cannot define two methods with same name, number of parameters and data type even if they have different return Type(same as reasoning mentioned in question number 3)