# Static Polymorphism

#### Count of Parameters

```
void myFunc(int count)
{
    System.out.println("single param func");
}

void myFunc(int count, int bound)
{
    System.out.println("double param func");
}
```

#### Data Types of Parameters

```
void myFunc(int count)
{
    System.out.println("func with int param");
}
void myFunc(long count)
{
    System.out.println("func with long param");
}
```

## Sequence of Data Type of Parameters

```
void myFunc(char c, int count)
    System.out.println("func with char first");
void myFunc(int count, char c)
    System.out.println("func with int first");
myFunc('a', 10);
myFunc(10, 'a');
myFunc('a', 'b'); //Compile Error - Ambiguity
```

### Return Type

**Compile Error** 

```
int square(int num)
{
    System.out.println("func with int output");
}
long square(int count)
{
    System.out.println("func with long output");
}
```

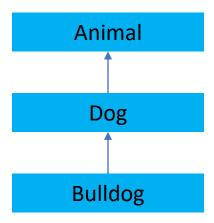
```
void myFunc(float num)
    System.out.println("func with float param");
void myFunc(long num)
    System.out.println("func with long param");
myFunc(10);
//func with long param
```

# Type Promotion

```
byte → short → int → long → float → double
```

```
private static void test(Animal animal)
{ System.out.println("func with animal param"); }
private static void test(Dog dog)
{ System.out.println("func with dog param"); }

Bulldog bulldog = new Bulldog();
test(bulldog);
//func with dog param
```



```
void test(String... strings)
{
    System.out.println("test with strings");
}

void test(int... numbers)
{
    System.out.println("test with ints");
}

test(); //Compile Error - Ambiguity
```

```
void test(float... numbers)
{
    System.out.println("test with floats");
}

void test(int... numbers)
{
    System.out.println("test with ints");
}

test();  //test with ints
```