

---

## 4.10 Shorthand

Instead of `int x; int y; x=1;y=1;`

we can write:

```
int x=1; int y=1;
```

or even

```
int x=1,y=1;
```

---

## 4.11 Exercises on Chapter 4

### 4.11.1 Add One

What is the output of [LectureVariables/AddOne.java]

```
class AddOne
{
    public static void main(String[] args)
    {
        int x = 1;
        x = x+1;
        System.out.println(x);
    }
}
```

(See page 167 Number 11 for the answer.)

### 4.11.2 Double

What is the output of [LectureVariables/DoubleDouble.java]

```
class DoubleDouble
{
    public static void main(String[] args)
    {
        int x = 1;
        x = 2*x;
        x=2*x;
        System.out.println(x);
    }
}
```

(See page 167 Number 12 for the answer.)

### 4.11.3 Arithmetic

What is the output of [LectureVariables/p1.java]

```
class p1
{
    public static void main(String[] args)
    {
        int x = 1;
        int y = 3;
        int z;
        z = 2*x +3*y;
        System.out.println(z+y);
    }
}
```

(See page 167 Number 13 for the answer.)

### 4.11.4 String Concatenation

What is the output of [LectureVariables/p2.java]

```
class p2
{
    public static void main(String[] args)
    {
        String x = "hello ";
        x=x+x;
        System.out.println(x);
    }
}
```

(See page 167 Number 14 for the answer.)

### 4.11.5 String and int Concatenation

What is the output of [LectureVariables/p3.java]

```
class p3
{
    public static void main(String[] args)
    {
        String x = "hello ";
        int y = 5;
        System.out.println(x+y);
    }
}
```

(See page 167 Number 15 for the answer.)

#### 4.11.6 Division by int

What is the output of [LectureVariables/p4.java]

```
class p4
{
    public static void main(String[] args)
    {
        int x= 11,y=5;
        int z= x/y;
        System.out.println(z);
    }
}
```

(See page 167 Number 16 for the answer.)

#### 4.11.7 Division by Real

What is the output of [LectureVariables/p5.java]

```
class p5
{
    public static void main(String[] args)
    {
        int x= 11;
        double y=5.0;
        double z= x/y;
        System.out.println(z);
    }
}
```

(See page 167 Number 17 for the answer.)

#### 4.11.8 Division by Zero

What is the output of [LectureVariables/p6.java]

```
class p6
{
    public static void main(String[] args)
    {
        int x= 11;
        System.out.println(x/0);
    }
}
```

(See page 167 Number 18 for the answer.)