Program 5

```
// This program uses a parameterized method.
class Box
{
      double width;
      double height;
      double depth;
      // compute and return volume
      double volume()
      {
            return width * height * depth;
      }
      // sets dimensions of box
      void setDim(double w, double h, double d)
      {
            width = w;
            height = h;
            depth = d;
      }
}
class BoxDemo5
{
      public static void main(String args[])
      {
            Box mybox1 = new Box();
            Box mybox2 = new Box();
            double vol;
            // initialize each box
            mybox1.setDim(10, 20, 15);
            mybox2.setDim(3, 6, 9);
            // get volume of first box
            vol = mybox1.volume();
            System.out.println("Volume is " + vol);
            // get volume of second box
            vol = mybox2.volume();
            System.out.println("Volume is " + vol);
      }
}
```

Program 6

```
/* Here, Box uses a constructor to initialize the dimensions of a box.*/
class Box
{
      double width;
      double height;
      double depth;
      // This is the constructor for Box.
      Box()
      {
            System.out.println("Constructing Box");
            width = 10;
            height = 10;
            depth = 10;
      }
      // compute and return volume
      double volume()
      {
            return width * height * depth;
      }
}
class BoxDemo6
{
      public static void main(String args[])
      {
            // declare, allocate, and initialize Box objects
            Box mybox1 = new Box();
            Box mybox2 = new Box();
            double vol;
            // get volume of first box
            vol = mybox1.volume();
            System.out.println("Volume is " + vol);
            // get volume of second box
            vol = mybox2.volume();
            System.out.println("Volume is " + vol);
      }
}
```

When this program is run, it generates the following results:

```
Constructing Box
Constructing Box
Volume is 1000.0
Volume is 1000.0
```

Program 7

```
/* Here, Box uses a parameterized constructor to initialize the dimensions of a box.*/
class Box
{
      double width;
      double height;
      double depth;
      // This is the constructor for Box.
      Box(double w, double h, double d)
      {
            width = w;
            height = h;
            depth = d;
      }
      // compute and return volume
      double volume()
      {
            return width * height * depth;
      }
}
class BoxDemo7
{
      public static void main(String args[])
      {
            // declare, allocate, and initialize Box objects
            Box mybox1 = new Box(10, 20, 15);
            Box mybox2 = new Box(3, 6, 9);
            double vol;
            // get volume of first box
            vol = mybox1.volume();
            System.out.println("Volume is " + vol);
            // get volume of second box
            vol = mybox2.volume();
            System.out.println("Volume is " + vol);
      }
}
```

The output from this program is shown here:

```
Volume is 3000.0
Volume is 162.0
```