**Program for object passing**

**class** Rectangle

{

int length;

int width;

**Rectangle**(int l, int b)

{

length = l;

width = b;

}

void area(**Rectangle** r1)

{

int areaOfRectangle = r1.length \* r1.width;

**System**.out.println("Area of Rectangle : "+ areaOfRectangle);

}

}

**class** RectangleDemo

{

**public** **static** void main(**String** args[])

{

**Rectangle** r1 = **new** **Rectangle**(10, 20);

r1.area(r1);

}

}

**Output of the program :**

Area of Rectangle : 200

**Different Ways of Passing Object as Parameter :**

**Way 1 : By directly passing Object Name**

**void** area(Rectangle r1)

{

**int** areaOfRectangle = r1.length \* r1.width;

System.out.println("Area of Rectangle : "+ areaOfRectangle);

}

class RectangleDemo

{

public **static** **void** main(String args[])

{

Rectangle r1 = new Rectangle(10, 20);

r1.area(r1);

}

**Way 2 : By passing Instance Variables one by one**

class Rectangle

{

**int** length;

**int** width;

**void** area(**int** length, **int** width)

{

**int** areaOfRectangle = length \* width;

System.out.println("Area of Rectangle : "+ areaOfRectangle);

}

}

class RectangleDemo

{

public **static** **void** main(String args[])

{

Rectangle r1 = new Rectangle();

Rectangle r2 = new Rectangle();

r1.length = 20;

r1.width = 10;

r2.area(r1.length, r1.width);

}

}

|  |
| --- |
| **// Java program to demonstrate one object to initialize another**  class Box  {      double width, height, depth;        // Notice this constructor. It takes an      // object of type Box. This constructor use      // one object to initialize another      Box(Box ob)      {          width = ob.width;          height = ob.height;          depth = ob.depth;      }        // constructor used when all dimensions      // specified      Box(double w, double h, double d)      {          width = w;          height = h;          depth = d;      }        // compute and return volume      double volume()      {          return width \* height \* depth;      }  }    // driver class  public class Test  {      public static void main(String args[])      {          // creating a box with all dimensions specified          Box mybox = new Box(10, 20, 15);            //  creating a copy of mybox          Box myclone = new Box(mybox);            double vol;            // get volume of mybox          vol = mybox.volume();          System.out.println("Volume of mybox is " + vol);            // get volume of myclone          vol = myclone.volume();          System.out.println("Volume of myclone is " + vol);      }  } |

Output:

Volume of mybox is 3000.0

Volume of myclone is 3000.0