IBM19CS0215

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```java
import java.util.Scanner;
abstract class shape
{ int d1, d2;
  abstract void printarea; }
class rectangle extends shape
{ void printarea()
  { System.out.println(" \n Area: " + (d1*d2)); }
}

class triangle extends shape
{ void printarea()
  { System.out.println(" \n Area: " + (d1*d2/2);}
}

class circle extends shape
{ void printarea();
  { System.out.println(" \n Area: " + (3.14159*d1*d2)); }
}

class shapeMain
{ public static void main (String args[])
  { int ch;
    triangle t = new triangle();
    circle c = new circle();
    rectangle r = new rectangle();
    System.out.println(" 1. Rectangle \n 2. Triangle \n 3. Circle ");
    System.out.println(" Enter the no of choice");
    ch = ser.nextInt();
    switch (ch)
```

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```
    { case 1 : System.out.println ("\n Enter height and width");
              r.d1 = get.nextInt();
              r.d2 = get.nextInt();
              r.printarea();
              break;
      case 2 : System.out.println("\nEnter altitude and base: ");
              t.d1 = get.nextInt();
              t.d2 = get.nextInt();
              break;
      case 3 : System.out.println(" Enter the radius: ");
              c.d1 = get.nextInt();
              c.printarea();
              break;
      default : System.out.println(" Invalid Input");
    }
  }
}
```

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