**Question 1**

public static double dist(double x1, double y1, double x2, double y2){

double x;

double y;

x = Math.abs(x2-x1);

y = Math.abs(y2-y1);

System.out.println(x);

System.out.println(y);

System.out.println((y\*y) + " : "+(x\*x));

double dist = Math.sqrt((y\*y)+(x\*x));

return dist;

}

**Question 2**

public static double rectArea (double x1, double y1, double x2, double y2, double x3, double y3, double x4, double y4) {

double l = x2-x1;

double w = y1-y3;

return l\*w;

}

}

**Question 3**

public static double cylArea (double r, double h) {

return Math.PI\*(r\*r)\*h;

}

**Question 4**

public static int calc (int n) {

int max = 0;

int sum = 0;

while (sum<=n){

sum = sum + max;

max++;

}

return max;

}

**Question 5**

The output for the code is:

10: int a is declared to be 10, and all that is printed out is a.

23: the method inc is called, given the value of a+12, which is 22, returning 23

11: the method inc is called, given the value of a, which is just 10, returning 11