**Problem 1**

# Karol puts a beeper and builds an internal wall

def main():

initial\_step()

move()

move()

def initial\_step():

move()

# repeat the body 4 times

for I in range ( 4);

put\_four\_ beepers()

move\_\_to\_next\_corner()

def move\_to\_next\_corner():

move()

move()

move()

move()

turn\_left()

#places 4 beepers using a for loop

def put\_four\_beepers():

for I in range (4)

put\_beeper()

**problem 2**

1. 0.44
2. false
3. B84

**Problem 3**

public class FindTopTwo {

public static void main(String[] args) {

int numArr[] = {2, 5, 14, 1, 26, 65, 123, 6};

// Assign lowest possible int value

int firstNum = Integer.MIN\_VALUE;

int secondNum = Integer.MIN\_VALUE;

for(int i = 0; i < numArr.length; i++){

if(firstNum < numArr[i]){

secondNum = firstNum;

firstNum = numArr[i];

}else if(secondNum < numArr[i]){

secondNum = numArr[i];

}

}

System.out.println("Top two numbers : First - " + firstNum + " Second " + secondNum);

}

}

**Problem 4**

**// This program gets a frog to jump one square in the closest direction to the mouth click**

Public class simple Frogger extens GraphicProgram {

Public void run() {

Frog – new Gimage(frog.gif);

Fx =(NCOLUMNS/2 + 0.5) \*SQUARE\_SIZE;

Fy =(NROWS -0.5) \* SQUARE\_SIZE;

Add(frog,fx – frog.getWidth()/2, fy – frog.getHeight()/2);

addMouseListeners();

}

**// Respond to mouse click**

**public void mouseClicked(mouseEvent e){**

**double mx = e.get();**

**double my = e.getY();**

**if (Math.abs (mx-fx) > Maths.abs(my-fx)){**

**of (mx>fx){**

**moveFrog(SQUARE\_SIZE,0);**

**} else{**

**moveFrog(0,SQUARE\_SIZE);**

**}**

**}}**

**Problem 5**

char[] chars = str.toCharArray();

StringBuilder sb = new StringBuilder();

boolean repeatedChar;

for (int i = 0; i < chars.length; i++) {

repeatedChar = false;

for (int j = i + 1; j < chars.length; j++) {

if (chars[i] == chars[j]) {

repeatedChar = true;

break;

}

}

if (!repeatedChar) {

sb.append(chars[i]);

}

}