Exercise 4.10

1. String inputStr = JOptionPane.ShowInputDialog (“Enter your Name”, “”);
2. JoptionPane.showMessageDialog ( null, “Josh Martin \n 11836 Tidewater drive”);
3. The dialog box returns a string of digits, which must be converted to an int or double. Integer.parseInt coverts the string to int and Double. parsedouble converts the string to double.
4. A checkerboard?

Exercise 5.1

* Cartesian Coordinate – is the one commonly used in math class with origin of (0,0) in the center of the graph
* Screen coordinates has (0,0) in the top left corner and all numbers are positive

Lesson 5.2

1. Object-based programming is the discipline of using existing classes, objects, and methods to solve problems.
2. APImage image = new ApImage(150,150)

Image.draw();

For (Pixel p: image) {

p.setGreen(255);

p.setRed(0);

p.setBlue(0);

}

Image.draw();

1. **int** y = image.getHeight() -1 ;

**for** ( x = 0; x <= image.getWidth() -1; x++){

image.setPixel(x, y, **new** Pixel(0, 0, 255));

image.draw();

}

Exercise 5.3

1. The loop marches across a row in the grid, prints the coordinates at each column in that row.
2. For ( int y = 0; y < 2; y++) {

For (int x = 0; x < 3; x++ )

System.out.print( “(“ + x+ “, ‘” + y + “)”)

System.out.println();

}

1. To return a new image with the same attributes as the original one.
2. To help with detection of objects in images.
3. Ug
4. APImage theOrignal = new APImage(‘smokey.jpg”);

theOrignal.draw();

APImage theClone = theOrginal.clone();

theClone.draw();

for (Pixel p: image) {

int red = p.getRed() , green = p.getGreen() , blue = p.getBlue() ;

int average = (red + green + blue) / 3 ;

p.setRed(average);

p.setGreen(average);

p.setBlue(average);

}

theClone.draw();

}

1. APImage theOrignal = new APImage(‘smokey.jpg”);

theOrignal.draw();

APImage theClone = theOrginal.clone();

theClone.draw();

for (Pixel p: image) {

int red = p.getRed() , green = p.getGreen() , blue = p.getBlue() ;

int average = (red + green + blue) / 3 ;

if (average < 128) {

p.setRed(0);

p.setGreen(0);

p.setBlue(0);

}

Else {

p.setRed(255);

p.setGreen(255);

p.setBlue(255);

}

}

theClone.draw();

}

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Yes, because the computer has less to process and since it’s already in black and white can more accurate transfer to pixels.