

# 11 Review of Lab#5 and A Bug in A3

Tuesday, October 20, 2020

```
public class StdIn
```

*methods for reading individual tokens from standard input*

```
boolean isEmpty()
int readInt()
double readDouble()
boolean readBoolean()
String readString()
```

*is standard input empty (or only whitespace)?*  
*read a token, convert it to an int, and return it*  
*read a token, convert it to a double, and return it*  
*read a token, convert it to a boolean, and return it*  
*read a token and return it as a String*

*methods for reading characters from standard input*

```
boolean hasNextChar()
char readChar()
```

*does standard input have any remaining characters?*  
*read a character from standard input and return it*

*methods for reading lines from standard input*

```
boolean hasNextLine()
String readLine()
```

*does standard input have a next line?*  
*read the rest of the line and return it as a String*

*methods for reading the rest of standard input*

```
int[] readAllInts()
double[] readAllDoubles()
boolean[] readAllBooleans()
String[] readAllStrings()
String[] readAllLines()
String readAll()
```

*read all remaining tokens and return them as an int array*  
*read all remaining tokens and return them as a double array*  
*read all remaining tokens and return them as a boolean array*  
*read all remaining tokens and return them as a String array*  
*read all remaining lines and return them as a String array*  
*read the rest of the input and return it as a String*

```
int sum = 0;
while (!StdIn.isEmpty()) {
    int value = StdIn.readInt();
    sum += value;
}
StdOut.println("sum is " + sum);
```

# 11 The StdDraw Graphics Library

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public class StdDraw (*basic control commands*)

void setCanvasSize(int w, int h)

*create canvas in screen window of width w and height h (in pixels)*

void setXscale(double x0, double x1)

*reset x-scale to (x0, x1)*

void setYscale(double y0, double y1)

*reset y-scale to (y0, y1)*

void setPenRadius(double radius)

*set pen radius to radius*

public class StdDraw (*basic drawing commands*)

void line(double x0, double y0, double x1, double y1)

void point(double x, double y)

public class StdDraw (*shapes*)

void circle(double x, double y, double radius)

void filledCircle(double x, double y, double radius)

void square(double x, double y, double r)

void filledSquare(double x, double y, double r)

void rectangle(double x, double y, double r1, double r2)

void filledRectangle(double x, double y, double r1, double r2)

void polygon(double[] x, double[] y)

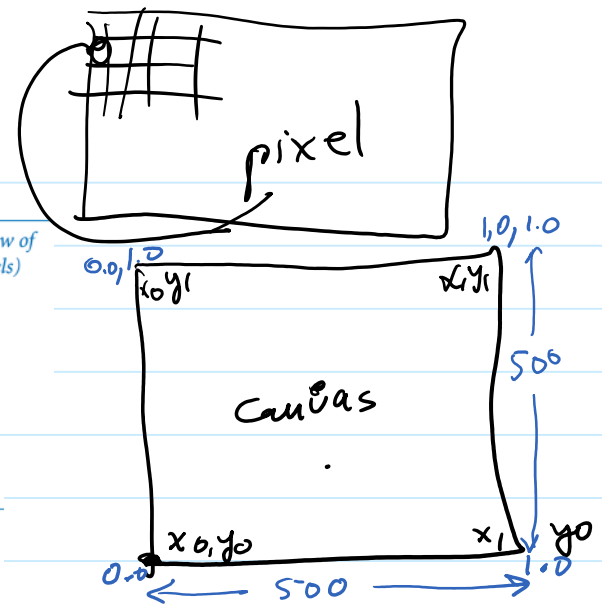
void filledPolygon(double[] x, double[] y)

public class StdDraw (*text and color commands*)

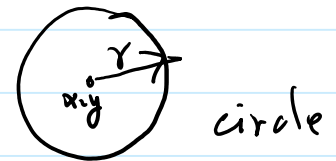
void text(double x, double y, String s)

void setFont(Font font)

void setPenColor(Color color)



stdDraw.point(x, y);  
stdDraw.line(x0, y0, x1, y1);



square(x, y, r)

