David Jefts

Jack Buchalski, Andrew Forste, Chris Graziano

**Problem #1:**

**O(n)**

loop through x points

if x point is greater than xMax

xMax=x point;

}

if x point is less than xMin

xMin=xpoint;

}

}

**O(n)**

loop through y points

if y point is greater than yMax

yMax=y point;

}

if y point is less than yMin

yMin=y point;

}

}

return top left point (xMin, yMax);

return length(xMax-xMin) and width(yMax-yMin);

*Complexity:* ***O(n)***

**Problem #2:**

**O(n)**

loop through x points

xSum+=x;

xCount++;

}

**O(n)**

loop through y points

ySum+=y;

yCount++;

}

return average(xSum/xCount, ySum/yCount)

**O(n)**

loop through x points

if (getDistance(avgPoint, currentPoint)<minDistance)

minDistance=getDistance(avgPoint, currentPoint);

}

}

return minDistance;

*Complexity:* ***O(n)***