**Assignment -1  
  
ALTAF SALIM SHAIKH  
NU ID: 002774748  
  
CONCLUSION**  
The number of random steps taken by a drunk man is related to the distance travelled.   
Through experimentation, it was discovered that the average distance squared is equal to the number of steps taken.  
By taking the square root of the number of steps, the distance travelled can be determined. Despite the steps being randomly generated, this correlation between distance and steps remains consistent.  
  
**EVIDENCE**  
  
Chart, line chart

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 **CODE**  
  
private void move(int dx, int dy) {

// FIXME do move by replacing the following code

x += dx;

y += dy;

}  
  
  
private void randomWalk(int m) {

// FIXME

// END

for (int i = 0; i < m; i++){

randomMove();

}

}  
  
 public double distance() {

// FIXME by replacing the following code

return Math.sqrt(Math.pow(x, 2) + Math.pow(y, 2));

}  
  
  
  
**TEST CASE**   
  
Graphical user interface, text, application

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