

```
1 "C:\Users\Kartikey Hebbar\.jdks\openjdk-21.0.1\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.1.2\lib\idea_rt.jar=63348:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.1.2\bin" -Dfile.encoding=UTF-8 -Dsun.stdout.encoding=UTF-8 -Dsun.stderr.encoding=UTF-8 -classpath "D:\MS\Coursework\Spring 2024\INFO 6205\Week 3\INF06205\target\classes;C:\Users\Kartikey Hebbar\.m2\repository\com\phasmidsoftware\args_2.13\1.0.3\args_2.13-1.0.3.jar;C:\Users\Kartikey Hebbar\.m2\repository\org\scala-lang\scala-library\2.13.7\scala-library-2.13.7.jar;C:\Users\Kartikey Hebbar\.m2\repository\org\scala-lang\modules\scala-parser-combinators_2.13\1.1.2\scala-parser-combinators_2.13-1.1.2.jar;C:\Users\Kartikey Hebbar\.m2\repository\com\phasmidsoftware\number_2.13\1.0.12\number_2.13-1.0.12.jar;C:\Users\Kartikey Hebbar\.m2\repository\com\phasmidsoftware\flog_2.13\1.0.8\flog_2.13-1.0.8.jar;C:\Users\Kartikey Hebbar\.m2\repository\org\slf4j\slf4j-api\1.7.30\slf4j-api-1.7.30.jar;C:\Users\Kartikey Hebbar\.m2\repository\com\phasmidsoftware\matchers_2.13\1.0.5\matchers_2.13-1.0.5.jar;C:\Users\Kartikey Hebbar\.m2\repository\org\scala-lang\scala-compiler\2.13.6\scala-compiler-2.13.6.jar;C:\Users\Kartikey Hebbar\.m2\repository\org\scala-lang\scala-reflect\2.13.6\scala-reflect-2.13.6.jar;C:\Users\Kartikey Hebbar\.m2\repository\org\jline\jline\3.19.0\jline-3.19.0.jar;C:\Users\Kartikey Hebbar\.m2\repository\net\java\dev\jna\jna\5.3.1\jna-5.3.1.jar;C:\
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1 Users\Kartikey Hebbar\.m2\repository\org\apache\commons\commons-math3\3.6.1\commons-math3-3.6.1.jar;C:\Users\Kartikey Hebbar\.m2\repository\org\apache\logging\log4j\log4j-api\2.19.0\log4j-api-2.19.0.jar;C:\Users\Kartikey Hebbar\.m2\repository\log4j\log4j\1.2.17\log4j-1.2.17.jar;C:\Users\Kartikey Hebbar\.m2\repository\com\google\guava\guava\31.1-jre\guava-31.1-jre.jar;C:\Users\Kartikey Hebbar\.m2\repository\com\google\guava\failureaccess\1.0.1\failureaccess-1.0.1.jar;C:\Users\Kartikey Hebbar\.m2\repository\com\google\guava\listenablefuture\9999.0-empty-to-avoid-conflict-with-guava\listenablefuture-9999.0-empty-to-avoid-conflict-with-guava.jar;C:\Users\Kartikey Hebbar\.m2\repository\com\google\code\findbugs\jsr305\3.0.2\jsr305-3.0.2.jar;C:\Users\Kartikey Hebbar\.m2\repository\org\checkerframework\checker-qual\3.12.0\checker-qual-3.12.0.jar;C:\Users\Kartikey Hebbar\.m2\repository\com\google\errorprone\error_prone_annotations\2.11.0\error_prone_annotations-2.11.0.jar;C:\Users\Kartikey Hebbar\.m2\repository\com\google\j2objc\j2objc-annotations\1.3\j2objc-annotations-1.3.jar;C:\Users\Kartikey Hebbar\.m2\repository\org\ini4j\ini4j\0.5.4\ini4j-0.5.4.jar" edu.neu.coe.info6205.randomwalk.RandomWalk 2 10
2 m = 2
3 N = 1
4 step = 1 of 2
5 Step taken in the x coordinate: -1, Step taken in the y coordinate: 0
6 Reached: (-1, 0) after the last move
```

```
7 step = 2 of 2
8 Step taken in the x coordinate: 0, Step taken
   in the y coordinate: -1
9 Reached: (-1, -1) after the last move
10 distance walked in this iteration = 1.
    4142135623730951
11 ****
12 N = 2
13 step = 1 of 2
14 Step taken in the x coordinate: -1, Step
   taken in the y coordinate: 0
15 Reached: (-1, 0) after the last move
16 step = 2 of 2
17 Step taken in the x coordinate: 0, Step taken
   in the y coordinate: 1
18 Reached: (-1, 1) after the last move
19 distance walked in this iteration = 1.
    4142135623730951
20 ****
21 N = 3
22 step = 1 of 2
23 Step taken in the x coordinate: -1, Step
   taken in the y coordinate: 0
24 Reached: (-1, 0) after the last move
25 step = 2 of 2
26 Step taken in the x coordinate: 1, Step taken
   in the y coordinate: 0
27 Reached: (0, 0) after the last move
28 distance walked in this iteration = 0.0
29 ****
30 N = 4
31 step = 1 of 2
32 Step taken in the x coordinate: 1, Step taken
   in the y coordinate: 0
33 Reached: (1, 0) after the last move
```

```
34 step = 2 of 2
35 Step taken in the x coordinate: -1, Step
   taken in the y coordinate: 0
36 Reached: (0, 0) after the last move
37 distance walked in this iteration = 0.0
38 ****
39 N = 5
40 step = 1 of 2
41 Step taken in the x coordinate: 0, Step taken
   in the y coordinate: -1
42 Reached: (0, -1) after the last move
43 step = 2 of 2
44 Step taken in the x coordinate: -1, Step
   taken in the y coordinate: 0
45 Reached: (-1, -1) after the last move
46 distance walked in this iteration = 1.
47 4142135623730951
48 ****
49 N = 6
50 step = 1 of 2
51 Step taken in the x coordinate: 0, Step taken
   in the y coordinate: -1
52 Reached: (0, -1) after the last move
53 step = 2 of 2
54 Step taken in the x coordinate: 0, Step taken
   in the y coordinate: 1
55 Reached: (0, 0) after the last move
56 distance walked in this iteration = 0.0
57 ****
58 N = 7
59 step = 1 of 2
60 Step taken in the x coordinate: -1, Step
   taken in the y coordinate: 0
61 Reached: (-1, 0) after the last move
62 step = 2 of 2
```

```
62 Step taken in the x coordinate: 0, Step taken
    in the y coordinate: -1
63 Reached: (-1, -1) after the last move
64 distance walked in this iteration = 1.
4142135623730951
65 ****
66 N = 8
67 step = 1 of 2
68 Step taken in the x coordinate: 0, Step taken
    in the y coordinate: -1
69 Reached: (0, -1) after the last move
70 step = 2 of 2
71 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
72 Reached: (-1, -1) after the last move
73 distance walked in this iteration = 1.
4142135623730951
74 ****
75 N = 9
76 step = 1 of 2
77 Step taken in the x coordinate: 1, Step taken
    in the y coordinate: 0
78 Reached: (1, 0) after the last move
79 step = 2 of 2
80 Step taken in the x coordinate: 0, Step taken
    in the y coordinate: 1
81 Reached: (1, 1) after the last move
82 distance walked in this iteration = 1.
4142135623730951
83 ****
84 N = 10
85 step = 1 of 2
86 Step taken in the x coordinate: 0, Step taken
    in the y coordinate: 1
87 Reached: (0, 1) after the last move
```

```
88 step = 2 of 2
89 Step taken in the x coordinate: -1, Step
  taken in the y coordinate: 0
90 Reached: (-1, 1) after the last move
91 distance walked in this iteration = 1.
  4142135623730951
92 ****
93 2 steps, mean Distance: 0.9899494936611667
  over 10 experiments
94
95 m = 3
96 N = 1
97 step = 1 of 3
98 Step taken in the x coordinate: 1, Step
  taken in the y coordinate: 0
99 Reached: (1, 0) after the last move
100 step = 2 of 3
101 Step taken in the x coordinate: 0, Step
  taken in the y coordinate: -1
102 Reached: (1, -1) after the last move
103 step = 3 of 3
104 Step taken in the x coordinate: 0, Step
  taken in the y coordinate: 1
105 Reached: (1, 0) after the last move
106 distance walked in this iteration = 1.0
107 ****
108 N = 2
109 step = 1 of 3
110 Step taken in the x coordinate: 1, Step
  taken in the y coordinate: 0
111 Reached: (1, 0) after the last move
112 step = 2 of 3
113 Step taken in the x coordinate: -1, Step
  taken in the y coordinate: 0
114 Reached: (0, 0) after the last move
```

```
115 step = 3 of 3
116 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
117 Reached: (0, -1) after the last move
118 distance walked in this iteration = 1.0
119 ****
120 N = 3
121 step = 1 of 3
122 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
123 Reached: (-1, 0) after the last move
124 step = 2 of 3
125 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
126 Reached: (-1, -1) after the last move
127 step = 3 of 3
128 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
129 Reached: (-1, 0) after the last move
130 distance walked in this iteration = 1.0
131 ****
132 N = 4
133 step = 1 of 3
134 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
135 Reached: (0, 1) after the last move
136 step = 2 of 3
137 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
138 Reached: (-1, 1) after the last move
139 step = 3 of 3
140 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
141 Reached: (0, 1) after the last move
142 distance walked in this iteration = 1.0
```

```
143 ****  
144 N = 5  
145 step = 1 of 3  
146 Step taken in the x coordinate: 0, Step  
    taken in the y coordinate: 1  
147 Reached: (0, 1) after the last move  
148 step = 2 of 3  
149 Step taken in the x coordinate: -1, Step  
    taken in the y coordinate: 0  
150 Reached: (-1, 1) after the last move  
151 step = 3 of 3  
152 Step taken in the x coordinate: -1, Step  
    taken in the y coordinate: 0  
153 Reached: (-2, 1) after the last move  
154 distance walked in this iteration = 2.  
    23606797749979  
155 ****  
156 N = 6  
157 step = 1 of 3  
158 Step taken in the x coordinate: -1, Step  
    taken in the y coordinate: 0  
159 Reached: (-1, 0) after the last move  
160 step = 2 of 3  
161 Step taken in the x coordinate: -1, Step  
    taken in the y coordinate: 0  
162 Reached: (-2, 0) after the last move  
163 step = 3 of 3  
164 Step taken in the x coordinate: 0, Step  
    taken in the y coordinate: 1  
165 Reached: (-2, 1) after the last move  
166 distance walked in this iteration = 2.  
    23606797749979  
167 ****  
168 N = 7  
169 step = 1 of 3
```

```
170 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
171 Reached: (0, 1) after the last move
172 step = 2 of 3
173 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
174 Reached: (0, 2) after the last move
175 step = 3 of 3
176 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
177 Reached: (0, 3) after the last move
178 distance walked in this iteration = 3.0
179 ****
180 N = 8
181 step = 1 of 3
182 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
183 Reached: (-1, 0) after the last move
184 step = 2 of 3
185 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
186 Reached: (-2, 0) after the last move
187 step = 3 of 3
188 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
189 Reached: (-2, -1) after the last move
190 distance walked in this iteration = 2.
    23606797749979
191 ****
192 N = 9
193 step = 1 of 3
194 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
195 Reached: (0, -1) after the last move
196 step = 2 of 3
```

```
197 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
198 Reached: (-1, -1) after the last move
199 step = 3 of 3
200 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
201 Reached: (-1, -2) after the last move
202 distance walked in this iteration = 2.
    23606797749979
203 ****
204 N = 10
205 step = 1 of 3
206 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
207 Reached: (1, 0) after the last move
208 step = 2 of 3
209 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
210 Reached: (1, 1) after the last move
211 step = 3 of 3
212 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
213 Reached: (2, 1) after the last move
214 distance walked in this iteration = 2.
    23606797749979
215 ****
216 3 steps, mean Distance: 1.8180339887498949
    over 10 experiments
217
218 m = 4
219 N = 1
220 step = 1 of 4
221 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
222 Reached: (0, -1) after the last move
```

```
223 step = 2 of 4
224 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
225 Reached: (-1, -1) after the last move
226 step = 3 of 4
227 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
228 Reached: (-2, -1) after the last move
229 step = 4 of 4
230 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
231 Reached: (-1, -1) after the last move
232 distance walked in this iteration = 1.
    4142135623730951
233 ****
234 N = 2
235 step = 1 of 4
236 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
237 Reached: (1, 0) after the last move
238 step = 2 of 4
239 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
240 Reached: (1, -1) after the last move
241 step = 3 of 4
242 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
243 Reached: (1, 0) after the last move
244 step = 4 of 4
245 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
246 Reached: (1, -1) after the last move
247 distance walked in this iteration = 1.
    4142135623730951
248 ****
```

```
249 N = 3
250 step = 1 of 4
251 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
252 Reached: (0, -1) after the last move
253 step = 2 of 4
254 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
255 Reached: (-1, -1) after the last move
256 step = 3 of 4
257 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
258 Reached: (-1, 0) after the last move
259 step = 4 of 4
260 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
261 Reached: (0, 0) after the last move
262 distance walked in this iteration = 0.0
263 ****
264 N = 4
265 step = 1 of 4
266 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
267 Reached: (0, -1) after the last move
268 step = 2 of 4
269 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
270 Reached: (-1, -1) after the last move
271 step = 3 of 4
272 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
273 Reached: (0, -1) after the last move
274 step = 4 of 4
275 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
```

```
276 Reached: (-1, -1) after the last move
277 distance walked in this iteration = 1.
    4142135623730951
278 ****
279 N = 5
280 step = 1 of 4
281 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
282 Reached: (0, -1) after the last move
283 step = 2 of 4
284 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
285 Reached: (0, 0) after the last move
286 step = 3 of 4
287 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
288 Reached: (1, 0) after the last move
289 step = 4 of 4
290 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
291 Reached: (1, 1) after the last move
292 distance walked in this iteration = 1.
    4142135623730951
293 ****
294 N = 6
295 step = 1 of 4
296 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
297 Reached: (-1, 0) after the last move
298 step = 2 of 4
299 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
300 Reached: (-2, 0) after the last move
301 step = 3 of 4
302 Step taken in the x coordinate: 0, Step
```

```
302 taken in the y coordinate: 1
303 Reached: (-2, 1) after the last move
304 step = 4 of 4
305 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
306 Reached: (-2, 0) after the last move
307 distance walked in this iteration = 2.0
308 ****
309 N = 7
310 step = 1 of 4
311 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
312 Reached: (0, -1) after the last move
313 step = 2 of 4
314 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
315 Reached: (-1, -1) after the last move
316 step = 3 of 4
317 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
318 Reached: (0, -1) after the last move
319 step = 4 of 4
320 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
321 Reached: (1, -1) after the last move
322 distance walked in this iteration = 1.
    4142135623730951
323 ****
324 N = 8
325 step = 1 of 4
326 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
327 Reached: (0, 1) after the last move
328 step = 2 of 4
329 Step taken in the x coordinate: 0, Step
```

```
329 taken in the y coordinate: -1
330 Reached: (0, 0) after the last move
331 step = 3 of 4
332 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
333 Reached: (0, -1) after the last move
334 step = 4 of 4
335 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
336 Reached: (0, -2) after the last move
337 distance walked in this iteration = 2.0
338 ****
339 N = 9
340 step = 1 of 4
341 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
342 Reached: (0, 1) after the last move
343 step = 2 of 4
344 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
345 Reached: (0, 2) after the last move
346 step = 3 of 4
347 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
348 Reached: (1, 2) after the last move
349 step = 4 of 4
350 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
351 Reached: (1, 1) after the last move
352 distance walked in this iteration = 1.
    4142135623730951
353 ****
354 N = 10
355 step = 1 of 4
356 Step taken in the x coordinate: 0, Step
```

```
356 taken in the y coordinate: 1
357 Reached: (0, 1) after the last move
358 step = 2 of 4
359 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
360 Reached: (1, 1) after the last move
361 step = 3 of 4
362 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
363 Reached: (1, 2) after the last move
364 step = 4 of 4
365 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
366 Reached: (2, 2) after the last move
367 distance walked in this iteration = 2.
    8284271247461903
368 ****
369 4 steps, mean Distance: 1.5313708498984762
    over 10 experiments
370
371 m = 5
372 N = 1
373 step = 1 of 5
374 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
375 Reached: (0, -1) after the last move
376 step = 2 of 5
377 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
378 Reached: (-1, -1) after the last move
379 step = 3 of 5
380 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
381 Reached: (-2, -1) after the last move
382 step = 4 of 5
```

```
383 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
384 Reached: (-1, -1) after the last move
385 step = 5 of 5
386 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
387 Reached: (-1, -2) after the last move
388 distance walked in this iteration = 2.
    23606797749979
389 ****
390 N = 2
391 step = 1 of 5
392 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
393 Reached: (0, -1) after the last move
394 step = 2 of 5
395 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
396 Reached: (-1, -1) after the last move
397 step = 3 of 5
398 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
399 Reached: (-2, -1) after the last move
400 step = 4 of 5
401 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
402 Reached: (-3, -1) after the last move
403 step = 5 of 5
404 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
405 Reached: (-3, -2) after the last move
406 distance walked in this iteration = 3.
    605551275463989
407 ****
408 N = 3
```

```
409 step = 1 of 5
410 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
411 Reached: (-1, 0) after the last move
412 step = 2 of 5
413 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
414 Reached: (0, 0) after the last move
415 step = 3 of 5
416 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
417 Reached: (-1, 0) after the last move
418 step = 4 of 5
419 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
420 Reached: (-1, -1) after the last move
421 step = 5 of 5
422 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
423 Reached: (0, -1) after the last move
424 distance walked in this iteration = 1.0
425 ****
426 N = 4
427 step = 1 of 5
428 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
429 Reached: (1, 0) after the last move
430 step = 2 of 5
431 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
432 Reached: (2, 0) after the last move
433 step = 3 of 5
434 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
435 Reached: (2, -1) after the last move
```

```
436 step = 4 of 5
437 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
438 Reached: (1, -1) after the last move
439 step = 5 of 5
440 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
441 Reached: (0, -1) after the last move
442 distance walked in this iteration = 1.0
443 ****
444 N = 5
445 step = 1 of 5
446 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
447 Reached: (0, 1) after the last move
448 step = 2 of 5
449 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
450 Reached: (0, 2) after the last move
451 step = 3 of 5
452 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
453 Reached: (-1, 2) after the last move
454 step = 4 of 5
455 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
456 Reached: (-2, 2) after the last move
457 step = 5 of 5
458 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
459 Reached: (-2, 1) after the last move
460 distance walked in this iteration = 2.
    23606797749979
461 ****
462 N = 6
```

```
463 step = 1 of 5
464 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
465 Reached: (-1, 0) after the last move
466 step = 2 of 5
467 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
468 Reached: (-1, 1) after the last move
469 step = 3 of 5
470 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
471 Reached: (-1, 2) after the last move
472 step = 4 of 5
473 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
474 Reached: (0, 2) after the last move
475 step = 5 of 5
476 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
477 Reached: (1, 2) after the last move
478 distance walked in this iteration = 2.
23606797749979
479 ****
480 N = 7
481 step = 1 of 5
482 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
483 Reached: (0, 1) after the last move
484 step = 2 of 5
485 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
486 Reached: (0, 2) after the last move
487 step = 3 of 5
488 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
```

```
489 Reached: (0, 1) after the last move
490 step = 4 of 5
491 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
492 Reached: (0, 0) after the last move
493 step = 5 of 5
494 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
495 Reached: (0, 1) after the last move
496 distance walked in this iteration = 1.0
497 ****
498 N = 8
499 step = 1 of 5
500 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
501 Reached: (0, 1) after the last move
502 step = 2 of 5
503 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
504 Reached: (0, 2) after the last move
505 step = 3 of 5
506 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
507 Reached: (0, 3) after the last move
508 step = 4 of 5
509 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
510 Reached: (-1, 3) after the last move
511 step = 5 of 5
512 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
513 Reached: (-1, 4) after the last move
514 distance walked in this iteration = 4.
    123105625617661
515 ****
```

```
516 N = 9
517 step = 1 of 5
518 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
519 Reached: (-1, 0) after the last move
520 step = 2 of 5
521 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
522 Reached: (-1, 1) after the last move
523 step = 3 of 5
524 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
525 Reached: (-1, 2) after the last move
526 step = 4 of 5
527 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
528 Reached: (-1, 1) after the last move
529 step = 5 of 5
530 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
531 Reached: (0, 1) after the last move
532 distance walked in this iteration = 1.0
533 ****
534 N = 10
535 step = 1 of 5
536 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
537 Reached: (0, -1) after the last move
538 step = 2 of 5
539 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
540 Reached: (0, -2) after the last move
541 step = 3 of 5
542 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
```

```
543 Reached: (0, -3) after the last move
544 step = 4 of 5
545 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
546 Reached: (-1, -3) after the last move
547 step = 5 of 5
548 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
549 Reached: (-2, -3) after the last move
550 distance walked in this iteration = 3.
    605551275463989
551 ****
552 5 steps, mean Distance: 2.2042412109045006
    over 10 experiments
553
554 m = 6
555 N = 1
556 step = 1 of 6
557 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
558 Reached: (-1, 0) after the last move
559 step = 2 of 6
560 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
561 Reached: (0, 0) after the last move
562 step = 3 of 6
563 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
564 Reached: (0, 1) after the last move
565 step = 4 of 6
566 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
567 Reached: (1, 1) after the last move
568 step = 5 of 6
569 Step taken in the x coordinate: 0, Step
```

```
569 taken in the y coordinate: 1
570 Reached: (1, 2) after the last move
571 step = 6 of 6
572 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
573 Reached: (1, 1) after the last move
574 distance walked in this iteration = 1.
    4142135623730951
575 ****
576 N = 2
577 step = 1 of 6
578 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
579 Reached: (0, 1) after the last move
580 step = 2 of 6
581 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
582 Reached: (-1, 1) after the last move
583 step = 3 of 6
584 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
585 Reached: (0, 1) after the last move
586 step = 4 of 6
587 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
588 Reached: (1, 1) after the last move
589 step = 5 of 6
590 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
591 Reached: (1, 0) after the last move
592 step = 6 of 6
593 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
594 Reached: (1, -1) after the last move
595 distance walked in this iteration = 1.
```

```
595 4142135623730951
596 ****
597 N = 3
598 step = 1 of 6
599 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
600 Reached: (0, 1) after the last move
601 step = 2 of 6
602 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
603 Reached: (-1, 1) after the last move
604 step = 3 of 6
605 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
606 Reached: (-1, 2) after the last move
607 step = 4 of 6
608 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
609 Reached: (0, 2) after the last move
610 step = 5 of 6
611 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
612 Reached: (-1, 2) after the last move
613 step = 6 of 6
614 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
615 Reached: (-2, 2) after the last move
616 distance walked in this iteration = 2.
     8284271247461903
617 ****
618 N = 4
619 step = 1 of 6
620 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
621 Reached: (1, 0) after the last move
```

```
622 step = 2 of 6
623 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
624 Reached: (1, -1) after the last move
625 step = 3 of 6
626 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
627 Reached: (2, -1) after the last move
628 step = 4 of 6
629 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
630 Reached: (1, -1) after the last move
631 step = 5 of 6
632 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
633 Reached: (2, -1) after the last move
634 step = 6 of 6
635 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
636 Reached: (2, -2) after the last move
637 distance walked in this iteration = 2.
8284271247461903
638 ****
639 N = 5
640 step = 1 of 6
641 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
642 Reached: (-1, 0) after the last move
643 step = 2 of 6
644 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
645 Reached: (-2, 0) after the last move
646 step = 3 of 6
647 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
```

```
648 Reached: (-1, 0) after the last move
649 step = 4 of 6
650 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
651 Reached: (0, 0) after the last move
652 step = 5 of 6
653 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
654 Reached: (-1, 0) after the last move
655 step = 6 of 6
656 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
657 Reached: (-2, 0) after the last move
658 distance walked in this iteration = 2.0
659 ****
660 N = 6
661 step = 1 of 6
662 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
663 Reached: (-1, 0) after the last move
664 step = 2 of 6
665 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
666 Reached: (-1, -1) after the last move
667 step = 3 of 6
668 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
669 Reached: (0, -1) after the last move
670 step = 4 of 6
671 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
672 Reached: (0, -2) after the last move
673 step = 5 of 6
674 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
```

```
675 Reached: (-1, -2) after the last move
676 step = 6 of 6
677 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
678 Reached: (-1, -3) after the last move
679 distance walked in this iteration = 3.
    1622776601683795
680 ****
681 N = 7
682 step = 1 of 6
683 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
684 Reached: (0, -1) after the last move
685 step = 2 of 6
686 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
687 Reached: (0, -2) after the last move
688 step = 3 of 6
689 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
690 Reached: (0, -3) after the last move
691 step = 4 of 6
692 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
693 Reached: (0, -4) after the last move
694 step = 5 of 6
695 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
696 Reached: (0, -5) after the last move
697 step = 6 of 6
698 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
699 Reached: (-1, -5) after the last move
700 distance walked in this iteration = 5.
    0990195135927845
```

```
701 ****  
702 N = 8  
703 step = 1 of 6  
704 Step taken in the x coordinate: 0, Step  
    taken in the y coordinate: -1  
705 Reached: (0, -1) after the last move  
706 step = 2 of 6  
707 Step taken in the x coordinate: -1, Step  
    taken in the y coordinate: 0  
708 Reached: (-1, -1) after the last move  
709 step = 3 of 6  
710 Step taken in the x coordinate: 0, Step  
    taken in the y coordinate: -1  
711 Reached: (-1, -2) after the last move  
712 step = 4 of 6  
713 Step taken in the x coordinate: -1, Step  
    taken in the y coordinate: 0  
714 Reached: (-2, -2) after the last move  
715 step = 5 of 6  
716 Step taken in the x coordinate: -1, Step  
    taken in the y coordinate: 0  
717 Reached: (-3, -2) after the last move  
718 step = 6 of 6  
719 Step taken in the x coordinate: 1, Step  
    taken in the y coordinate: 0  
720 Reached: (-2, -2) after the last move  
721 distance walked in this iteration = 2.  
    8284271247461903  
722 ****  
723 N = 9  
724 step = 1 of 6  
725 Step taken in the x coordinate: 0, Step  
    taken in the y coordinate: -1  
726 Reached: (0, -1) after the last move  
727 step = 2 of 6
```

```
728 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
729 Reached: (1, -1) after the last move
730 step = 3 of 6
731 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
732 Reached: (1, 0) after the last move
733 step = 4 of 6
734 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
735 Reached: (1, -1) after the last move
736 step = 5 of 6
737 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
738 Reached: (2, -1) after the last move
739 step = 6 of 6
740 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
741 Reached: (3, -1) after the last move
742 distance walked in this iteration = 3.
    1622776601683795
743 ****
744 N = 10
745 step = 1 of 6
746 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
747 Reached: (-1, 0) after the last move
748 step = 2 of 6
749 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
750 Reached: (-1, -1) after the last move
751 step = 3 of 6
752 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
753 Reached: (-1, 0) after the last move
```

```
754 step = 4 of 6
755 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
756 Reached: (0, 0) after the last move
757 step = 5 of 6
758 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
759 Reached: (-1, 0) after the last move
760 step = 6 of 6
761 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
762 Reached: (0, 0) after the last move
763 distance walked in this iteration = 0.0
764 ****
765 6 steps, mean Distance: 2.4737283332914304
    over 10 experiments
766
767 m = 7
768 N = 1
769 step = 1 of 7
770 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
771 Reached: (0, -1) after the last move
772 step = 2 of 7
773 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
774 Reached: (1, -1) after the last move
775 step = 3 of 7
776 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
777 Reached: (2, -1) after the last move
778 step = 4 of 7
779 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
780 Reached: (3, -1) after the last move
```

```
781 step = 5 of 7
782 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
783 Reached: (4, -1) after the last move
784 step = 6 of 7
785 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
786 Reached: (4, -2) after the last move
787 step = 7 of 7
788 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
789 Reached: (5, -2) after the last move
790 distance walked in this iteration = 5.
    385164807134504
791 ****
792 N = 2
793 step = 1 of 7
794 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
795 Reached: (0, 1) after the last move
796 step = 2 of 7
797 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
798 Reached: (-1, 1) after the last move
799 step = 3 of 7
800 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
801 Reached: (-1, 2) after the last move
802 step = 4 of 7
803 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
804 Reached: (-2, 2) after the last move
805 step = 5 of 7
806 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
```

```
807 Reached: (-2, 3) after the last move
808 step = 6 of 7
809 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
810 Reached: (-2, 2) after the last move
811 step = 7 of 7
812 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
813 Reached: (-3, 2) after the last move
814 distance walked in this iteration = 3.
    605551275463989
815 ****
816 N = 3
817 step = 1 of 7
818 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
819 Reached: (1, 0) after the last move
820 step = 2 of 7
821 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
822 Reached: (1, 1) after the last move
823 step = 3 of 7
824 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
825 Reached: (1, 2) after the last move
826 step = 4 of 7
827 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
828 Reached: (0, 2) after the last move
829 step = 5 of 7
830 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
831 Reached: (-1, 2) after the last move
832 step = 6 of 7
833 Step taken in the x coordinate: 0, Step
```

```
833 taken in the y coordinate: -1
834 Reached: (-1, 1) after the last move
835 step = 7 of 7
836 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
837 Reached: (-2, 1) after the last move
838 distance walked in this iteration = 2.
    23606797749979
839 ****
840 N = 4
841 step = 1 of 7
842 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
843 Reached: (1, 0) after the last move
844 step = 2 of 7
845 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
846 Reached: (1, -1) after the last move
847 step = 3 of 7
848 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
849 Reached: (0, -1) after the last move
850 step = 4 of 7
851 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
852 Reached: (1, -1) after the last move
853 step = 5 of 7
854 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
855 Reached: (2, -1) after the last move
856 step = 6 of 7
857 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
858 Reached: (1, -1) after the last move
859 step = 7 of 7
```

```
860 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
861 Reached: (1, -2) after the last move
862 distance walked in this iteration = 2.
23606797749979
863 ****
864 N = 5
865 step = 1 of 7
866 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
867 Reached: (1, 0) after the last move
868 step = 2 of 7
869 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
870 Reached: (1, 1) after the last move
871 step = 3 of 7
872 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
873 Reached: (1, 2) after the last move
874 step = 4 of 7
875 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
876 Reached: (1, 1) after the last move
877 step = 5 of 7
878 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
879 Reached: (1, 0) after the last move
880 step = 6 of 7
881 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
882 Reached: (1, -1) after the last move
883 step = 7 of 7
884 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
885 Reached: (0, -1) after the last move
```

```
886 distance walked in this iteration = 1.0
887 ****
888 N = 6
889 step = 1 of 7
890 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
891 Reached: (1, 0) after the last move
892 step = 2 of 7
893 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
894 Reached: (1, 1) after the last move
895 step = 3 of 7
896 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
897 Reached: (2, 1) after the last move
898 step = 4 of 7
899 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
900 Reached: (3, 1) after the last move
901 step = 5 of 7
902 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
903 Reached: (3, 2) after the last move
904 step = 6 of 7
905 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
906 Reached: (2, 2) after the last move
907 step = 7 of 7
908 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
909 Reached: (2, 1) after the last move
910 distance walked in this iteration = 2.
    23606797749979
911 ****
912 N = 7
```

```
913 step = 1 of 7
914 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
915 Reached: (0, -1) after the last move
916 step = 2 of 7
917 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
918 Reached: (1, -1) after the last move
919 step = 3 of 7
920 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
921 Reached: (0, -1) after the last move
922 step = 4 of 7
923 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
924 Reached: (0, 0) after the last move
925 step = 5 of 7
926 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
927 Reached: (0, -1) after the last move
928 step = 6 of 7
929 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
930 Reached: (0, -2) after the last move
931 step = 7 of 7
932 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
933 Reached: (1, -2) after the last move
934 distance walked in this iteration = 2.
    23606797749979
935 ****
936 N = 8
937 step = 1 of 7
938 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
```

```
939 Reached: (0, -1) after the last move
940 step = 2 of 7
941 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
942 Reached: (0, 0) after the last move
943 step = 3 of 7
944 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
945 Reached: (0, 1) after the last move
946 step = 4 of 7
947 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
948 Reached: (0, 0) after the last move
949 step = 5 of 7
950 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
951 Reached: (0, 1) after the last move
952 step = 6 of 7
953 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
954 Reached: (0, 0) after the last move
955 step = 7 of 7
956 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
957 Reached: (1, 0) after the last move
958 distance walked in this iteration = 1.0
959 ****
960 N = 9
961 step = 1 of 7
962 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
963 Reached: (-1, 0) after the last move
964 step = 2 of 7
965 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
```

```
966 Reached: (-1, 1) after the last move
967 step = 3 of 7
968 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
969 Reached: (-2, 1) after the last move
970 step = 4 of 7
971 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
972 Reached: (-2, 0) after the last move
973 step = 5 of 7
974 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
975 Reached: (-2, -1) after the last move
976 step = 6 of 7
977 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
978 Reached: (-1, -1) after the last move
979 step = 7 of 7
980 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
981 Reached: (-2, -1) after the last move
982 distance walked in this iteration = 2.
23606797749979
983 ****
984 N = 10
985 step = 1 of 7
986 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
987 Reached: (0, 1) after the last move
988 step = 2 of 7
989 Step taken in the x coordinate: -1, Step
    taken in the y coordinate: 0
990 Reached: (-1, 1) after the last move
991 step = 3 of 7
992 Step taken in the x coordinate: 1, Step
```

```
992 taken in the y coordinate: 0
993 Reached: (0, 1) after the last move
994 step = 4 of 7
995 Step taken in the x coordinate: 1, Step
    taken in the y coordinate: 0
996 Reached: (1, 1) after the last move
997 step = 5 of 7
998 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
999 Reached: (1, 0) after the last move
1000 step = 6 of 7
1001 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: 1
1002 Reached: (1, 1) after the last move
1003 step = 7 of 7
1004 Step taken in the x coordinate: 0, Step
    taken in the y coordinate: -1
1005 Reached: (1, 0) after the last move
1006 distance walked in this iteration = 1.0
1007 ****
1008 7 steps, mean Distance: 2.317105597009744
    over 10 experiments
1009
1010
1011 Process finished with exit code 0
1012
```