Python 3.6.3 |Anaconda, Inc.| (default, Oct 13 2017, 12:02:49)

[GCC 7.2.0] on linux

Type "copyright", "credits" or "license()" for more information.

>>>

===== RESTART: /home/cserv1\_a/soc\_msc/ml16m6y/Downloads/schooling\_R2.py =====

Testing average cycles for repulsion strength 2

Number of cycles run: 2703

Number of cycles run: 5863

Number of cycles run: 14762

Number of cycles run: 5000

Number of cycles run: 425

Number of cycles run: 20324

Number of cycles run: 9757

Number of cycles run: 1962

Number of cycles run: 5876

Number of cycles run: 5153

Number of cycles run: 2489

Number of cycles run: 2361

Number of cycles run: 403

Number of cycles run: 2014

Number of cycles run: 422

Number of cycles run: 6655

Number of cycles run: 2362

Number of cycles run: 2306

Number of cycles run: 2389

Number of cycles run: 2349

Number of cycles run: 6920

Number of cycles run: 15249

Number of cycles run: 2078

Number of cycles run: 2357

Number of cycles run: 3529

Number of cycles run: 439

Number of cycles run: 38738

Number of cycles run: 5724

Number of cycles run: 801

Number of cycles run: 9674

Number of cycles run: 5550

Number of cycles run: 50000

Number of cycles run: 4493

Number of cycles run: 3364

Number of cycles run: 1434

Number of cycles run: 3061

Number of cycles run: 2733

Number of cycles run: 41233

Number of cycles run: 50000

Number of cycles run: 621

Number of cycles run: 14681

Number of cycles run: 7266

Number of cycles run: 2760

Number of cycles run: 50000

Number of cycles run: 11848

Number of cycles run: 12944

Number of cycles run: 2131

Number of cycles run: 1841

Number of cycles run: 1157

Number of cycles run: 8485

Number of cycles run: 3252

Number of cycles run: 5020

Number of cycles run: 50000

Number of cycles run: 2338

Number of cycles run: 4169

Number of cycles run: 50000

Number of cycles run: 3068

Number of cycles run: 50000

Number of cycles run: 2098

Number of cycles run: 12826

Number of cycles run: 550

Number of cycles run: 880

Number of cycles run: 2173

Number of cycles run: 820

Number of cycles run: 1956

Number of cycles run: 594

Number of cycles run: 5127

Number of cycles run: 2785

Number of cycles run: 4683

Number of cycles run: 2562

Number of cycles run: 445

Number of cycles run: 5485

Number of cycles run: 853

Number of cycles run: 2289

Number of cycles run: 3513

Number of cycles run: 17164

Number of cycles run: 401

Number of cycles run: 4216

Number of cycles run: 5595

Number of cycles run: 4679

Number of cycles run: 2160

Number of cycles run: 2891

Number of cycles run: 4080

Number of cycles run: 1481

Number of cycles run: 3097

Number of cycles run: 4285

Number of cycles run: 2485

Number of cycles run: 50000

Number of cycles run: 1525

Number of cycles run: 931

Number of cycles run: 2012

Number of cycles run: 694

Number of cycles run: 1411

Number of cycles run: 2251

Number of cycles run: 1361

Number of cycles run: 50000

Number of cycles run: 2986

Number of cycles run: 4066

Number of cycles run: 1901

Number of cycles run: 14763

Av cycles for repulsion strength 2 is 8606

standard diviation is 13840.9564547

Testing average cycles for repulsion strength 2

Number of cycles run: 838

Number of cycles run: 435

Number of cycles run: 1901

Number of cycles run: 2676

Number of cycles run: 2679

Number of cycles run: 5046

Number of cycles run: 6396

Number of cycles run: 4067

Number of cycles run: 41472

Number of cycles run: 823

Number of cycles run: 1820

Number of cycles run: 629

Number of cycles run: 1963

Number of cycles run: 1245

Number of cycles run: 785

Number of cycles run: 1699

Number of cycles run: 13706

Number of cycles run: 437

Number of cycles run: 50000

Number of cycles run: 4556

Number of cycles run: 3872

Number of cycles run: 10725

Number of cycles run: 954

Number of cycles run: 1474

Number of cycles run: 1195

Number of cycles run: 2812

Number of cycles run: 50000

Number of cycles run: 2558

Number of cycles run: 4103

Number of cycles run: 2768

Number of cycles run: 7004

Number of cycles run: 962

Number of cycles run: 1161

Number of cycles run: 7194

Number of cycles run: 1019

Number of cycles run: 4446

Number of cycles run: 2675

Number of cycles run: 17146

Number of cycles run: 3116

Number of cycles run: 3310

Number of cycles run: 4827

Number of cycles run: 3307

Number of cycles run: 42671

Number of cycles run: 419

Number of cycles run: 5093

Number of cycles run: 6975

Number of cycles run: 802

Number of cycles run: 2322

Number of cycles run: 1584

Number of cycles run: 3070

Number of cycles run: 1950

Number of cycles run: 4684

Number of cycles run: 861

Number of cycles run: 1544

Number of cycles run: 5662

Number of cycles run: 432

Number of cycles run: 4154

Number of cycles run: 1834

Number of cycles run: 2989

Number of cycles run: 3165

Number of cycles run: 50000

Number of cycles run: 2165

Number of cycles run: 1250

Number of cycles run: 10462

Number of cycles run: 2913

Number of cycles run: 50000

Number of cycles run: 50000

Number of cycles run: 3444

Number of cycles run: 3099

Number of cycles run: 21415

Number of cycles run: 2847

Number of cycles run: 2394

Number of cycles run: 50000

Number of cycles run: 437

Number of cycles run: 19596

Number of cycles run: 2292

Number of cycles run: 5323

Number of cycles run: 8229

Number of cycles run: 50000

Number of cycles run: 7668

Number of cycles run: 1579

Number of cycles run: 50000

Number of cycles run: 432

Number of cycles run: 5818

Number of cycles run: 454

Number of cycles run: 2015

Number of cycles run: 50000

Number of cycles run: 2224

Number of cycles run: 2301

Number of cycles run: 3094

Number of cycles run: 1677

Number of cycles run: 3488

Number of cycles run: 1410

Number of cycles run: 4520

Number of cycles run: 4861

Number of cycles run: 1720

Number of cycles run: 2910

Number of cycles run: 3801

Number of cycles run: 50000

Number of cycles run: 6583

Av cycles for repulsion strength 2 is 9124

standard diviation is 15155.5263775

Testing average cycles for repulsion strength 2

Number of cycles run: 1294

Number of cycles run: 19868

Number of cycles run: 19349

Number of cycles run: 2923

Number of cycles run: 566

Number of cycles run: 5000

Number of cycles run: 1439

Number of cycles run: 1933

Number of cycles run: 4280

Number of cycles run: 1269

Number of cycles run: 884

Number of cycles run: 3389

Number of cycles run: 4985

Number of cycles run: 8614

Number of cycles run: 16121

Number of cycles run: 728

Number of cycles run: 4138

Number of cycles run: 453

Number of cycles run: 5385

Number of cycles run: 1514

Number of cycles run: 5012

Number of cycles run: 8721

Number of cycles run: 4323

Number of cycles run: 3690

Number of cycles run: 1530

Number of cycles run: 5461

Number of cycles run: 441

Number of cycles run: 861

Number of cycles run: 12054

Number of cycles run: 377

Number of cycles run: 25695

Number of cycles run: 897

Number of cycles run: 5591

Number of cycles run: 5053

Number of cycles run: 50000

Number of cycles run: 1274

Number of cycles run: 417

Number of cycles run: 3044

Number of cycles run: 1309

Number of cycles run: 2386

Number of cycles run: 3570

Number of cycles run: 4262

Number of cycles run: 2934

Number of cycles run: 10514

Number of cycles run: 1100

Number of cycles run: 1602

Number of cycles run: 3789

Number of cycles run: 3426

Number of cycles run: 3716

Number of cycles run: 4291

Number of cycles run: 1714

Number of cycles run: 1312

Number of cycles run: 2964

Number of cycles run: 12778

Number of cycles run: 5187

Number of cycles run: 28831

Number of cycles run: 3910

Number of cycles run: 1071

Number of cycles run: 2391

Number of cycles run: 28967

Number of cycles run: 4920

Number of cycles run: 4372

Number of cycles run: 5522

Number of cycles run: 1585

Number of cycles run: 50000

Number of cycles run: 1227

Number of cycles run: 5145

Number of cycles run: 2459

Number of cycles run: 2196

Number of cycles run: 50000

Number of cycles run: 7880

Number of cycles run: 31088

Number of cycles run: 2255

Number of cycles run: 3582

Number of cycles run: 7078

Number of cycles run: 5050

Number of cycles run: 5680

Number of cycles run: 1045

Number of cycles run: 3392

Number of cycles run: 4164

Number of cycles run: 22524

Number of cycles run: 4717

Number of cycles run: 2084

Number of cycles run: 3662

Number of cycles run: 4978

Number of cycles run: 3126

Number of cycles run: 50000

Number of cycles run: 2757

Number of cycles run: 5755

Number of cycles run: 435

Number of cycles run: 2427

Number of cycles run: 5391

Number of cycles run: 834

Number of cycles run: 4152

Number of cycles run: 819

Number of cycles run: 3549

Number of cycles run: 2729

Number of cycles run: 425

Number of cycles run: 7070

Number of cycles run: 5865

Av cycles for repulsion strength 2 is 7025

standard diviation is 10802.2413186

Testing average cycles for repulsion strength 2

Number of cycles run: 1059

Number of cycles run: 7156

Number of cycles run: 2193

Number of cycles run: 1900

Number of cycles run: 3401

Number of cycles run: 3061

Number of cycles run: 4343

Number of cycles run: 1598

Number of cycles run: 703

Python 3.6.3 |Anaconda, Inc.| (default, Oct 13 2017, 12:02:49)

[GCC 7.2.0] on linux

Type "copyright", "credits" or "license()" for more information.

>>>

===== RESTART: /home/cserv1\_a/soc\_msc/ml16m6y/Downloads/schooling\_R4.py =====/5=8958.6

Testing average cycles for repulsion strength 2

Number of cycles run: 50000

Number of cycles run: 32243

Number of cycles run: 1392

Number of cycles run: 3333

Number of cycles run: 8215

Number of cycles run: 9327

Number of cycles run: 50000

Number of cycles run: 3476

Number of cycles run: 1839

Number of cycles run: 5278

Number of cycles run: 4816

Number of cycles run: 50000

Number of cycles run: 434

Number of cycles run: 5858

Number of cycles run: 448

Number of cycles run: 33254

Number of cycles run: 19885

Number of cycles run: 19157

Number of cycles run: 50000

Number of cycles run: 2128

Number of cycles run: 50000

Number of cycles run: 2056

Number of cycles run: 23357

Number of cycles run: 2639

Number of cycles run: 2282

Number of cycles run: 9849

Number of cycles run: 448

Number of cycles run: 8917

Number of cycles run: 443

Number of cycles run: 7166

Number of cycles run: 4033

Number of cycles run: 4053

Number of cycles run: 7576

Number of cycles run: 6625

Number of cycles run: 2815

Number of cycles run: 14088

Number of cycles run: 5185

Number of cycles run: 3184

Number of cycles run: 12711

Number of cycles run: 771

Number of cycles run: 9375

Number of cycles run: 4374

Number of cycles run: 2826

Number of cycles run: 6493

Number of cycles run: 4366

Number of cycles run: 398

Number of cycles run: 877

Number of cycles run: 9004

Number of cycles run: 2221

Number of cycles run: 40780

Number of cycles run: 8157

Number of cycles run: 4107

Number of cycles run: 4458

Number of cycles run: 8806

Number of cycles run: 798

Number of cycles run: 15617

Number of cycles run: 3731

Number of cycles run: 13147

Number of cycles run: 30914

Number of cycles run: 1138

Number of cycles run: 1974

Number of cycles run: 3439

Number of cycles run: 4077

Number of cycles run: 50000

Number of cycles run: 1145

Number of cycles run: 50000

Number of cycles run: 2667

Number of cycles run: 3678

Number of cycles run: 2246

Number of cycles run: 8909

Number of cycles run: 1093

Number of cycles run: 2785

Number of cycles run: 1825

Number of cycles run: 49363

Number of cycles run: 14929

Number of cycles run: 3303

Number of cycles run: 671

Number of cycles run: 32012

Number of cycles run: 1118

Number of cycles run: 50000

Number of cycles run: 5436

Number of cycles run: 1205

Number of cycles run: 1166

Number of cycles run: 24710

Number of cycles run: 4359

Number of cycles run: 6727

Number of cycles run: 4082

Number of cycles run: 17603

Number of cycles run: 3395

Number of cycles run: 2515

Number of cycles run: 50000

Number of cycles run: 5127

Number of cycles run: 11531

Number of cycles run: 2803

Number of cycles run: 3491

Number of cycles run: 2129

Number of cycles run: 1967

Number of cycles run: 3517

Number of cycles run: 6224

Number of cycles run: 1421

Av cycles for repulsion strength 2 is 11355

standard diviation is 15159.9788908

Testing average cycles for repulsion strength 2

Number of cycles run: 3446

Number of cycles run: 2871

Number of cycles run: 2744

Number of cycles run: 50000

Number of cycles run: 10940

Number of cycles run: 36933

Number of cycles run: 902

Number of cycles run: 50000

Number of cycles run: 3534

Number of cycles run: 421

Number of cycles run: 2831

Number of cycles run: 4623

Number of cycles run: 1375

Number of cycles run: 19931

Number of cycles run: 846

Number of cycles run: 546

Number of cycles run: 7722

Number of cycles run: 47739

Number of cycles run: 429

Number of cycles run: 50000

Number of cycles run: 5208

Number of cycles run: 2818

Number of cycles run: 50000

Number of cycles run: 9521

Number of cycles run: 3294

Number of cycles run: 3965

Number of cycles run: 3228

Number of cycles run: 1137

Number of cycles run: 4132

Number of cycles run: 13790

Number of cycles run: 50000

Number of cycles run: 50000

Number of cycles run: 4119

Number of cycles run: 1144

Number of cycles run: 19749

Number of cycles run: 2390

Number of cycles run: 2747

Number of cycles run: 1079

Number of cycles run: 2887

Number of cycles run: 9521

Number of cycles run: 449

Number of cycles run: 2063

Number of cycles run: 50000

Number of cycles run: 520

Number of cycles run: 4507

Number of cycles run: 2886

Number of cycles run: 3716

Number of cycles run: 2140

Number of cycles run: 4906

Number of cycles run: 2562

Number of cycles run: 4103

Number of cycles run: 3832

Number of cycles run: 4733

Number of cycles run: 4193

Number of cycles run: 4260

Number of cycles run: 813

Number of cycles run: 5786

Number of cycles run: 2453

Number of cycles run: 5764

Number of cycles run: 3291

Number of cycles run: 4038

Number of cycles run: 4744

Number of cycles run: 1174

Number of cycles run: 4183

Number of cycles run: 1666

Number of cycles run: 6110

Number of cycles run: 1969

Number of cycles run: 13774

Number of cycles run: 3054

Number of cycles run: 2475

Number of cycles run: 1902

Number of cycles run: 1386

Number of cycles run: 3075

Number of cycles run: 3896

Number of cycles run: 2207

Number of cycles run: 1388

Number of cycles run: 2167

Number of cycles run: 1451

Number of cycles run: 7389

Number of cycles run: 3058

Number of cycles run: 4784

Number of cycles run: 1804

Number of cycles run: 3773

Number of cycles run: 8296

Number of cycles run: 2150

Number of cycles run: 429

Number of cycles run: 17640

Number of cycles run: 996

Number of cycles run: 5436

Number of cycles run: 2146

Number of cycles run: 50000

Number of cycles run: 29924

Number of cycles run: 4549

Number of cycles run: 2503

Number of cycles run: 676

Number of cycles run: 445

Number of cycles run: 4110

Number of cycles run: 1916

Number of cycles run: 2311

Number of cycles run: 1790

Av cycles for repulsion strength 2 is 8683

standard diviation is 14116.9784767

Testing average cycles for repulsion strength 2

Number of cycles run: 6518

Number of cycles run: 50000

Number of cycles run: 16065

Number of cycles run: 3104

Number of cycles run: 22901

Number of cycles run: 2767

Number of cycles run: 2367

Number of cycles run: 2940

Number of cycles run: 8599

Number of cycles run: 28977

Number of cycles run: 1454

Number of cycles run: 1948

Number of cycles run: 36842

Number of cycles run: 50000

Number of cycles run: 3485

Number of cycles run: 3820

Number of cycles run: 14900

Number of cycles run: 50000

Number of cycles run: 7902

Number of cycles run: 3350

Number of cycles run: 4091

Number of cycles run: 7346

Number of cycles run: 2664

Number of cycles run: 22427

Number of cycles run: 3271

Number of cycles run: 1028

Number of cycles run: 50000

Number of cycles run: 6823

Number of cycles run: 19892

Number of cycles run: 3326

Number of cycles run: 4016

Number of cycles run: 1600

Number of cycles run: 2547

Number of cycles run: 1796

Number of cycles run: 50000

Number of cycles run: 50000

Number of cycles run: 5445

Number of cycles run: 2629

Number of cycles run: 3782

Number of cycles run: 3131

Python 3.6.3 |Anaconda, Inc.| (default, Oct 13 2017, 12:02:49)

[GCC 7.2.0] on linux

Type "copyright", "credits" or "license()" for more information.

>>>

===== RESTART: /home/cserv1\_a/soc\_msc/ml16m6y/Downloads/schooling\_R2.py =====

Testing average cycles for repulsion strength 2

Number of cycles run: 14301

Number of cycles run: 50000

Number of cycles run: 1683

Number of cycles run: 2320

Number of cycles run: 1453

Number of cycles run: 1753

Number of cycles run: 1208

Number of cycles run: 3177

Number of cycles run: 4582

Number of cycles run: 3262

Number of cycles run: 50000

Number of cycles run: 828

Number of cycles run: 6277

Number of cycles run: 50000

Number of cycles run: 3617

Number of cycles run: 2158

Number of cycles run: 423

Number of cycles run: 32450

Number of cycles run: 4160

Number of cycles run: 1408

Number of cycles run: 4212

Number of cycles run: 50000

Number of cycles run: 2159

Number of cycles run: 3356

Number of cycles run: 1716

Number of cycles run: 11009

Number of cycles run: 1749

Number of cycles run: 5962

Number of cycles run: 2289

Number of cycles run: 2124

Number of cycles run: 2370

Number of cycles run: 4125

Number of cycles run: 1475

Number of cycles run: 20558

Number of cycles run: 7301

Number of cycles run: 1968

Number of cycles run: 436

Number of cycles run: 440

Number of cycles run: 4733

Number of cycles run: 3312

Number of cycles run: 7763

Number of cycles run: 2290

Number of cycles run: 2162

Number of cycles run: 2006

Number of cycles run: 2851

Number of cycles run: 50000

Number of cycles run: 4169

Number of cycles run: 33720

Number of cycles run: 2134

Number of cycles run: 2280

Number of cycles run: 1303

Number of cycles run: 4026

Number of cycles run: 4032

Number of cycles run: 10105

Number of cycles run: 2027

Number of cycles run: 10618

Number of cycles run: 2761

Number of cycles run: 2984

Number of cycles run: 889

Number of cycles run: 50000

Number of cycles run: 50000

Number of cycles run: 6792

Number of cycles run: 50000

Number of cycles run: 3335

Number of cycles run: 50000

Number of cycles run: 18758

Number of cycles run: 4572

Number of cycles run: 50000

Number of cycles run: 10894

Number of cycles run: 2980

Number of cycles run: 5153

Number of cycles run: 2877

Number of cycles run: 9396

Number of cycles run: 1248

Number of cycles run: 1754

Number of cycles run: 977

Number of cycles run: 1102

Number of cycles run: 50000

Number of cycles run: 2964

Number of cycles run: 4349

Number of cycles run: 904

Number of cycles run: 10032

Number of cycles run: 4449

Number of cycles run: 7425

Number of cycles run: 12898

Number of cycles run: 50000

Number of cycles run: 1770

Number of cycles run: 3815

Number of cycles run: 7700

Number of cycles run: 27255

Number of cycles run: 4791

Number of cycles run: 1970

Number of cycles run: 1896

Number of cycles run: 1617

Number of cycles run: 3091

Number of cycles run: 12137

Number of cycles run: 3373

Number of cycles run: 7188

Number of cycles run: 1939

Number of cycles run: 1036

Av cycles for repulsion strength 2 is 10569

standard diviation is 15769.106702

Testing average cycles for repulsion strength 2

Number of cycles run: 13798

Number of cycles run: 1946

Number of cycles run: 2430

Number of cycles run: 13381

Number of cycles run: 1757

Number of cycles run: 1535

Number of cycles run: 435

Number of cycles run: 15167

Number of cycles run: 4589

Number of cycles run: 1763

Number of cycles run: 8103

Number of cycles run: 50000

Number of cycles run: 5664

Number of cycles run: 50000

Number of cycles run: 3027

Number of cycles run: 2506

Number of cycles run: 416

Number of cycles run: 5362

Number of cycles run: 907

Number of cycles run: 10366

Number of cycles run: 2314

Number of cycles run: 3164

Number of cycles run: 42460

Number of cycles run: 4037

Number of cycles run: 5634

Number of cycles run: 1572

Number of cycles run: 436

Number of cycles run: 10359

Number of cycles run: 864

Number of cycles run: 1212

Number of cycles run: 787

Number of cycles run: 50000

Number of cycles run: 410

Number of cycles run: 18516

Number of cycles run: 1395

Number of cycles run: 1796

Number of cycles run: 6128

Number of cycles run: 2831

Number of cycles run: 3552

Number of cycles run: 4211

Number of cycles run: 13538

Number of cycles run: 50000

Number of cycles run: 50000

Number of cycles run: 7944

Number of cycles run: 3445

Number of cycles run: 1255

Number of cycles run: 3614

Number of cycles run: 1780

Number of cycles run: 24029

Number of cycles run: 12390

Number of cycles run: 1367

Number of cycles run: 1949

Number of cycles run: 3766

Number of cycles run: 622

Number of cycles run: 50000

Number of cycles run: 2452

Number of cycles run: 50000

Number of cycles run: 2944

Number of cycles run: 33305

Number of cycles run: 1909

Number of cycles run: 19979

Number of cycles run: 2387

Number of cycles run: 5670

Number of cycles run: 844

Number of cycles run: 963

Number of cycles run: 1998

Number of cycles run: 1296

Number of cycles run: 50000

Number of cycles run: 2173

Number of cycles run: 1746

Number of cycles run: 3059

Number of cycles run: 431

Number of cycles run: 14381

Number of cycles run: 9457

Number of cycles run: 1625

Number of cycles run: 3666

Number of cycles run: 3156

Number of cycles run: 1383

Number of cycles run: 4682

Number of cycles run: 1687

Number of cycles run: 6943

Number of cycles run: 3557

Number of cycles run: 3901

Number of cycles run: 50000

Number of cycles run: 8178

Number of cycles run: 8532

Number of cycles run: 1863

Number of cycles run: 5888

Number of cycles run: 1999

Number of cycles run: 3700

Number of cycles run: 7361

Number of cycles run: 1931

Number of cycles run: 2367

Number of cycles run: 4549

Number of cycles run: 539

Number of cycles run: 3051

Number of cycles run: 9125

Number of cycles run: 50000

Number of cycles run: 2807

Number of cycles run: 50000

Av cycles for repulsion strength 2 is 10280

standard diviation is 15454.8135973

Testing average cycles for repulsion strength 2

Number of cycles run: 15632

Number of cycles run: 1651

Number of cycles run: 4336

Number of cycles run: 4553

Number of cycles run: 7847

Number of cycles run: 50000

Number of cycles run: 3287

Number of cycles run: 4664

Number of cycles run: 2339

Number of cycles run: 5651

Number of cycles run: 3729

Number of cycles run: 3376

Number of cycles run: 7934

Number of cycles run: 1302

Number of cycles run: 550

Number of cycles run: 1591

Number of cycles run: 1981

Number of cycles run: 3669

Number of cycles run: 9593

Number of cycles run: 2275

Number of cycles run: 403

Number of cycles run: 28900

Number of cycles run: 36678

Number of cycles run: 3066

Number of cycles run: 5674

Number of cycles run: 2724

Number of cycles run: 3305

Number of cycles run: 10963

Number of cycles run: 1842

Number of cycles run: 6051

Number of cycles run: 7791

Number of cycles run: 7919

Number of cycles run: 2793

Number of cycles run: 6533

Number of cycles run: 2147

Number of cycles run: 4093

Number of cycles run: 3115

Number of cycles run: 3226

Number of cycles run: 2555

Number of cycles run: 401

Number of cycles run: 4121

Number of cycles run: 1920

Number of cycles run: 50000

Number of cycles run: 19732

Number of cycles run: 50000

Number of cycles run: 1733

Number of cycles run: 36869

Number of cycles run: 38708

Number of cycles run: 443

Number of cycles run: 5465

Number of cycles run: 3036

Number of cycles run: 5327

Number of cycles run: 3436

Number of cycles run: 2048

Number of cycles run: 6438

Number of cycles run: 6870

Number of cycles run: 4627

Number of cycles run: 730

Number of cycles run: 396

Number of cycles run: 841

Number of cycles run: 50000

Number of cycles run: 7191

Number of cycles run: 32065

Number of cycles run: 2676

Number of cycles run: 3125

Number of cycles run: 2472

Number of cycles run: 50000

Number of cycles run: 13780

Number of cycles run: 2818

Number of cycles run: 35319

Number of cycles run: 3738

Number of cycles run: 1011

Number of cycles run: 4158

Number of cycles run: 50000

Number of cycles run: 7444

Number of cycles run: 3074

Number of cycles run: 14273

Number of cycles run: 11867

Number of cycles run: 18474

Number of cycles run: 5838

Number of cycles run: 2165

Number of cycles run: 6875

Number of cycles run: 23940

Number of cycles run: 2098

Number of cycles run: 2699

Number of cycles run: 2044

Number of cycles run: 2381

Number of cycles run: 50000

Number of cycles run: 1668

Number of cycles run: 6772

Number of cycles run: 3901

Number of cycles run: 3278

Number of cycles run: 32144

Number of cycles run: 4500

Number of cycles run: 1194

Number of cycles run: 2729

Number of cycles run: 2168

Number of cycles run: 3779

Number of cycles run: 1250

Number of cycles run: 7064

Av cycles for repulsion strength 2 is 10008

standard diviation is 14004.4526776

Testing average cycles for repulsion strength 2

Number of cycles run: 50000

Number of cycles run: 9274

Number of cycles run: 8285

Number of cycles run: 935

Number of cycles run: 1865

Number of cycles run: 5619

Number of cycles run: 2385

Number of cycles run: 2965

Number of cycles run: 3129

Number of cycles run: 11887

Number of cycles run: 50000

Number of cycles run: 2184

Number of cycles run: 2082

Number of cycles run: 990

Number of cycles run: 403

Number of cycles run: 2732

Number of cycles run: 36784

Number of cycles run: 50000

Number of cycles run: 2543

Number of cycles run: 2265

Number of cycles run: 5892

Number of cycles run: 15007

Number of cycles run: 5913

Number of cycles run: 50000

Number of cycles run: 7087

Number of cycles run: 4462

Number of cycles run: 50000

Number of cycles run: 7206

Number of cycles run: 31743

Number of cycles run: 2844

Number of cycles run: 1594

Number of cycles run: 2566

Number of cycles run: 9665

Number of cycles run: 34641

Number of cycles run: 20943

Number of cycles run: 1879

Number of cycles run: 4495

Number of cycles run: 13366

Number of cycles run: 4296

Number of cycles run: 2496

Number of cycles run: 4563

Number of cycles run: 22200

Number of cycles run: 872

Number of cycles run: 50000

Number of cycles run: 2623

Number of cycles run: 11646

Number of cycles run: 3726

Number of cycles run: 438

Number of cycles run: 50000

Number of cycles run: 4462

Number of cycles run: 6164

Number of cycles run: 3368

Number of cycles run: 6090

Number of cycles run: 1012

Number of cycles run: 2630

Number of cycles run: 1215

Number of cycles run: 14530

Number of cycles run: 3198

Number of cycles run: 6387

Number of cycles run: 12357

Number of cycles run: 9228

Number of cycles run: 1673

Number of cycles run: 4213

Number of cycles run: 4374

Number of cycles run: 1306

Number of cycles run: 8131

Number of cycles run: 661

Number of cycles run: 28211

Number of cycles run: 1950

Number of cycles run: 1774

Number of cycles run: 382

Number of cycles run: 2707

Number of cycles run: 2682

Number of cycles run: 3129

Number of cycles run: 3216

Number of cycles run: 1611

Number of cycles run: 7535

Number of cycles run: 3791

Number of cycles run: 1582

Number of cycles run: 388

Number of cycles run: 2346

Number of cycles run: 2101

Number of cycles run: 2542

Number of cycles run: 854

Number of cycles run: 5584

Number of cycles run: 1418

Number of cycles run: 1577

Number of cycles run: 19377

Number of cycles run: 12113

Number of cycles run: 50000

Number of cycles run: 1485

Number of cycles run: 17079

Number of cycles run: 4012

Number of cycles run: 5703

Number of cycles run: 1594

Number of cycles run: 1977

Number of cycles run: 3407

Number of cycles run: 442

Number of cycles run: 50000

Number of cycles run: 2838

Av cycles for repulsion strength 2 is 10048

standard diviation is 14492.676487

Testing average cycles for repulsion strength 2

Number of cycles run: 6087

Number of cycles run: 3924

Number of cycles run: 2347

Number of cycles run: 50000

Number of cycles run: 50000

Number of cycles run: 2940

Number of cycles run: 2408

Number of cycles run: 2410

Number of cycles run: 790

Number of cycles run: 49098

Number of cycles run: 2259

Number of cycles run: 410

Number of cycles run: 1607

Number of cycles run: 2636

Number of cycles run: 933

Number of cycles run: 3068

Number of cycles run: 24556

Number of cycles run: 558

Number of cycles run: 682

Number of cycles run: 4262

Number of cycles run: 50000

Number of cycles run: 8436

Number of cycles run: 664

Number of cycles run: 13813

Number of cycles run: 1815

Number of cycles run: 23968

Number of cycles run: 3861

Number of cycles run: 50000

Number of cycles run: 1237

Number of cycles run: 424

Number of cycles run: 1919

Number of cycles run: 1367

Number of cycles run: 1456

Number of cycles run: 10428

Number of cycles run: 1673

Number of cycles run: 4436

Number of cycles run: 50000

Number of cycles run: 1499

Number of cycles run: 631

Number of cycles run: 2584

Number of cycles run: 4185

Number of cycles run: 3539

Number of cycles run: 5266

Number of cycles run: 1550

Number of cycles run: 2249

Number of cycles run: 3171

Number of cycles run: 1154

Number of cycles run: 1476

Number of cycles run: 866

Number of cycles run: 50000

Number of cycles run: 2954

Number of cycles run: 30999

Number of cycles run: 41647

Number of cycles run: 10593

Number of cycles run: 2006

Number of cycles run: 1713

Number of cycles run: 34033

Number of cycles run: 1612

Number of cycles run: 16059

Number of cycles run: 1562

Number of cycles run: 2578

Number of cycles run: 4971

Number of cycles run: 1385

Number of cycles run: 837

Number of cycles run: 5065

Number of cycles run: 1021

Number of cycles run: 3041

Number of cycles run: 20781

Number of cycles run: 2288

Number of cycles run: 50000

Number of cycles run: 50000

Number of cycles run: 9655

Number of cycles run: 45782

Number of cycles run: 15910