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

[GCC 7.2.0] on linux

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>>>

===== RESTART: /home/cserv1\_a/soc\_msc/ml16m6y/Downloads/schooling\_S2.py =====

Testing average cycles for attraction strength 1.8

Number of cycles run: 4839

Number of cycles run: 3331

Number of cycles run: 1313

Number of cycles run: 3191

Number of cycles run: 2780

Number of cycles run: 5467

Number of cycles run: 1049

Number of cycles run: 5287

Number of cycles run: 614

Number of cycles run: 901

Number of cycles run: 3046

Number of cycles run: 50000

Number of cycles run: 2031

Number of cycles run: 2713

Number of cycles run: 3105

Number of cycles run: 1426

Number of cycles run: 838

Number of cycles run: 2848

Number of cycles run: 2122

Number of cycles run: 1761

Number of cycles run: 1474

Number of cycles run: 8204

Number of cycles run: 50000

Number of cycles run: 2703

Number of cycles run: 1954

Number of cycles run: 1647

Number of cycles run: 50000

Number of cycles run: 3293

Number of cycles run: 2773

Number of cycles run: 2002

Number of cycles run: 1365

Number of cycles run: 1316

Number of cycles run: 6992

Number of cycles run: 1069

Number of cycles run: 807

Number of cycles run: 1762

Number of cycles run: 4535

Number of cycles run: 1201

Number of cycles run: 1606

Number of cycles run: 1907

Number of cycles run: 5560

Number of cycles run: 2631

Number of cycles run: 18780

Number of cycles run: 1764

Number of cycles run: 1659

Number of cycles run: 723

Number of cycles run: 5553

Number of cycles run: 1343

Number of cycles run: 1648

Number of cycles run: 3379

Number of cycles run: 2854

Number of cycles run: 3926

Number of cycles run: 1205

Number of cycles run: 633

Number of cycles run: 2078

Number of cycles run: 1451

Number of cycles run: 2173

Number of cycles run: 4743

Number of cycles run: 9061

Number of cycles run: 43484

Number of cycles run: 42536

Number of cycles run: 1498

Number of cycles run: 448

Number of cycles run: 2997

Number of cycles run: 1773

Number of cycles run: 1649

Number of cycles run: 1169

Number of cycles run: 3194

Number of cycles run: 4470

Number of cycles run: 1178

Number of cycles run: 466

Number of cycles run: 457

Number of cycles run: 50000

Number of cycles run: 4348

Number of cycles run: 2854

Number of cycles run: 1344

Number of cycles run: 4371

Number of cycles run: 21860

Number of cycles run: 2214

Number of cycles run: 3336

Number of cycles run: 3595

Number of cycles run: 4204

Number of cycles run: 1599

Number of cycles run: 6052

Number of cycles run: 34392

Number of cycles run: 2494

Number of cycles run: 1895

Number of cycles run: 3448

Number of cycles run: 2669

Number of cycles run: 4761

Number of cycles run: 1435

Number of cycles run: 4217

Number of cycles run: 25148

Number of cycles run: 1147

Number of cycles run: 8408

Number of cycles run: 3567

Number of cycles run: 8959

Number of cycles run: 1139

Number of cycles run: 1307

Number of cycles run: 3382

Av cycles for attraction strength 1.8 is 6359

standard diviation is 11601.2039396

Testing average cycles for attraction strength 1.8

Number of cycles run: 2087

Number of cycles run: 26218

Number of cycles run: 50000

Number of cycles run: 2409

Number of cycles run: 1688

Number of cycles run: 1386

Number of cycles run: 1790

Number of cycles run: 2749

Number of cycles run: 820

Number of cycles run: 566

Number of cycles run: 2030

Number of cycles run: 48804

Number of cycles run: 1233

Number of cycles run: 19656

Number of cycles run: 458

Number of cycles run: 6202

Number of cycles run: 1678

Number of cycles run: 2988

Number of cycles run: 1514

Number of cycles run: 1239

Number of cycles run: 50000

Number of cycles run: 14727

Number of cycles run: 17852

Number of cycles run: 1974

Number of cycles run: 18815

Number of cycles run: 2740

Number of cycles run: 994

Number of cycles run: 4379

Number of cycles run: 4290

Number of cycles run: 1799

Number of cycles run: 3184

Number of cycles run: 5606

Number of cycles run: 6239

Number of cycles run: 2238

Number of cycles run: 36335

Number of cycles run: 1542

Number of cycles run: 17702

Number of cycles run: 3638

Number of cycles run: 475

Number of cycles run: 3483

Number of cycles run: 1922

Number of cycles run: 1145

Number of cycles run: 3242

Number of cycles run: 1538

Number of cycles run: 5893

Number of cycles run: 3646

Number of cycles run: 6262

Number of cycles run: 8264

Number of cycles run: 441

Number of cycles run: 6605

Number of cycles run: 50000

Number of cycles run: 3061

Number of cycles run: 1103

Number of cycles run: 3996

Number of cycles run: 1636

Number of cycles run: 1678

Number of cycles run: 1641

Number of cycles run: 50000

Number of cycles run: 3397

Number of cycles run: 3491

Number of cycles run: 4020

Number of cycles run: 2737

Number of cycles run: 1518

Number of cycles run: 4723

Number of cycles run: 3312

Number of cycles run: 2550

Number of cycles run: 873

Number of cycles run: 3423

Number of cycles run: 1590

Number of cycles run: 1379

Number of cycles run: 3569

Number of cycles run: 541

Number of cycles run: 7023

Number of cycles run: 20027

Number of cycles run: 1876

Number of cycles run: 1787

Number of cycles run: 1692

Number of cycles run: 1094

Number of cycles run: 2885

Number of cycles run: 1898

Number of cycles run: 2898

Number of cycles run: 456

Number of cycles run: 3775

Number of cycles run: 2985

Number of cycles run: 1374

Number of cycles run: 2717

Number of cycles run: 14165

Number of cycles run: 1147

Number of cycles run: 1648

Number of cycles run: 2288

Number of cycles run: 6945

Number of cycles run: 1803

Number of cycles run: 841

Number of cycles run: 1667

Number of cycles run: 778

Number of cycles run: 1187

Number of cycles run: 4581

Number of cycles run: 3765

Number of cycles run: 420

Number of cycles run: 8931

Av cycles for attraction strength 1.8 is 6653

standard diviation is 11490.99236

Testing average cycles for attraction strength 1.8

Number of cycles run: 1460

Number of cycles run: 16110

Number of cycles run: 1697

Number of cycles run: 433

Number of cycles run: 1394

Number of cycles run: 850

Number of cycles run: 4230

Number of cycles run: 49641

Number of cycles run: 1366

Number of cycles run: 3023

Number of cycles run: 1289

Number of cycles run: 451

Number of cycles run: 2676

Number of cycles run: 20553

Number of cycles run: 14968

Number of cycles run: 2788

Number of cycles run: 1822

Number of cycles run: 1935

Number of cycles run: 980

Number of cycles run: 518

Number of cycles run: 1377

Number of cycles run: 5668

Number of cycles run: 1292

Number of cycles run: 2600

Number of cycles run: 40449

Number of cycles run: 3475

Number of cycles run: 1779

Number of cycles run: 2946

Number of cycles run: 3232

Number of cycles run: 5938

Number of cycles run: 2320

Number of cycles run: 2827

Number of cycles run: 2749

Number of cycles run: 2155

Number of cycles run: 2712

Number of cycles run: 2089

Number of cycles run: 1502

Number of cycles run: 684

Number of cycles run: 3074

Number of cycles run: 50000

Number of cycles run: 4005

Number of cycles run: 714

Number of cycles run: 22992

Number of cycles run: 1667

Number of cycles run: 1508

Number of cycles run: 4637

Number of cycles run: 2165

Number of cycles run: 1421

Number of cycles run: 455

Number of cycles run: 5733

Number of cycles run: 6112

Number of cycles run: 1593

Number of cycles run: 1775

Number of cycles run: 4411

Number of cycles run: 1497

Number of cycles run: 1548

Number of cycles run: 2194

Number of cycles run: 613

Number of cycles run: 2944

Number of cycles run: 1283

Number of cycles run: 2804

Number of cycles run: 3425

Number of cycles run: 8409

Number of cycles run: 421

Number of cycles run: 1748

Number of cycles run: 50000

Number of cycles run: 2174

Number of cycles run: 31857

Number of cycles run: 3626

Number of cycles run: 1564

Number of cycles run: 50000

Number of cycles run: 2076

Number of cycles run: 1120

Number of cycles run: 4593

Number of cycles run: 4259

Number of cycles run: 2528

Number of cycles run: 2887

Number of cycles run: 50000

Number of cycles run: 3323

Number of cycles run: 1664

Number of cycles run: 7571

Number of cycles run: 1983

Number of cycles run: 2302

Number of cycles run: 3551

Number of cycles run: 2058

Number of cycles run: 2593

Number of cycles run: 2061

Number of cycles run: 28588

Number of cycles run: 50000

Number of cycles run: 2356

Number of cycles run: 1637

Number of cycles run: 1802

Number of cycles run: 4476

Number of cycles run: 1338

Number of cycles run: 2816

Number of cycles run: 11274

Number of cycles run: 1544

Number of cycles run: 1131

Number of cycles run: 1869

Number of cycles run: 2404

Av cycles for attraction strength 1.8 is 6981

standard diviation is 12650.9998842

Testing average cycles for attraction strength 1.8

Number of cycles run: 2884

Number of cycles run: 1533

Number of cycles run: 1314

Number of cycles run: 850

Number of cycles run: 1545

Number of cycles run: 1306

Number of cycles run: 2166

Number of cycles run: 1565

Number of cycles run: 1807

Number of cycles run: 1142

Number of cycles run: 1000

Number of cycles run: 1322

Number of cycles run: 2914

Number of cycles run: 441

Number of cycles run: 19344

Number of cycles run: 2324

Number of cycles run: 1336

Number of cycles run: 624

Number of cycles run: 1716

Number of cycles run: 1111

Number of cycles run: 6045

Number of cycles run: 1165

Number of cycles run: 5279

Number of cycles run: 1064

Number of cycles run: 3899

Number of cycles run: 2536

Number of cycles run: 1368

Number of cycles run: 50000

Number of cycles run: 13710

Number of cycles run: 1953

Number of cycles run: 2040

Number of cycles run: 2593

Number of cycles run: 843

Number of cycles run: 4756

Number of cycles run: 1307

Number of cycles run: 1011

Number of cycles run: 7064

Number of cycles run: 2533

Number of cycles run: 2519

Number of cycles run: 3048

Number of cycles run: 4314

Number of cycles run: 1288

Number of cycles run: 531

Number of cycles run: 1614

Number of cycles run: 2026

Number of cycles run: 5249

Number of cycles run: 2046

Number of cycles run: 7114

Number of cycles run: 1777

Number of cycles run: 10395

Number of cycles run: 713

Number of cycles run: 8035

Number of cycles run: 1967

Number of cycles run: 1987

Number of cycles run: 4661

Number of cycles run: 1508

Number of cycles run: 457

Number of cycles run: 1435

Number of cycles run: 7310

Number of cycles run: 3517

Number of cycles run: 3374

Number of cycles run: 659

Number of cycles run: 594

Number of cycles run: 4054

Number of cycles run: 820

Number of cycles run: 13252

Number of cycles run: 3285

Number of cycles run: 3642

Number of cycles run: 2776

Number of cycles run: 3440

Number of cycles run: 3906

Number of cycles run: 47203

Number of cycles run: 737

Number of cycles run: 6376

Number of cycles run: 432

Number of cycles run: 17484

Number of cycles run: 1236

Number of cycles run: 1391

Number of cycles run: 448

Number of cycles run: 2177

Number of cycles run: 1177

Number of cycles run: 1216

Number of cycles run: 1182

Number of cycles run: 2526

Number of cycles run: 3374

Number of cycles run: 50000

Number of cycles run: 2515

Number of cycles run: 50000

Number of cycles run: 12372

Number of cycles run: 3078

Number of cycles run: 2499

Number of cycles run: 4643

Number of cycles run: 37314

Number of cycles run: 3710

Number of cycles run: 1007

Number of cycles run: 3344

Number of cycles run: 3213

Number of cycles run: 2340

Number of cycles run: 1005

Number of cycles run: 675

Av cycles for attraction strength 1.8 is 5353

standard diviation is 10218.945623

Testing average cycles for attraction strength 1.8

Number of cycles run: 451

Number of cycles run: 2750

Number of cycles run: 2840

Number of cycles run: 6235

Number of cycles run: 3056

Number of cycles run: 1895

Number of cycles run: 1239

Number of cycles run: 948

Number of cycles run: 1290

Number of cycles run: 1318

Number of cycles run: 1515

Number of cycles run: 5507

Number of cycles run: 2096

Number of cycles run: 2546

Number of cycles run: 1355

Number of cycles run: 2037

Number of cycles run: 2839

Number of cycles run: 2485

Number of cycles run: 1872

Number of cycles run: 1841

Number of cycles run: 590

Number of cycles run: 8024

Number of cycles run: 4873

Number of cycles run: 3263

Number of cycles run: 9132

Number of cycles run: 2014

Number of cycles run: 50000

Number of cycles run: 2109

Number of cycles run: 2967

Number of cycles run: 5154

Number of cycles run: 4620

Number of cycles run: 471

Number of cycles run: 475

Number of cycles run: 4390

Number of cycles run: 5548

Number of cycles run: 450

Number of cycles run: 2376

Number of cycles run: 702

Number of cycles run: 5664

Number of cycles run: 4376

Number of cycles run: 1703

Number of cycles run: 4064

Number of cycles run: 33484

Number of cycles run: 13430

Number of cycles run: 2893

Number of cycles run: 1314

Number of cycles run: 1494

Number of cycles run: 2362

Number of cycles run: 995

Number of cycles run: 6617

Number of cycles run: 2197

Number of cycles run: 1818

Number of cycles run: 2697

Number of cycles run: 2241

Number of cycles run: 27269

Number of cycles run: 18761

Number of cycles run: 566

Number of cycles run: 3373

Number of cycles run: 3975

Number of cycles run: 1792

Number of cycles run: 4832

Number of cycles run: 4103

Number of cycles run: 3686

Number of cycles run: 697

Number of cycles run: 6024

Number of cycles run: 2541

Number of cycles run: 2950

Number of cycles run: 8164

Number of cycles run: 6126

Number of cycles run: 3940

Number of cycles run: 3462

Number of cycles run: 847

Number of cycles run: 3178

Number of cycles run: 2609

Number of cycles run: 1502

Number of cycles run: 1367

Number of cycles run: 3490

Number of cycles run: 814

Number of cycles run: 1574

Number of cycles run: 647

Number of cycles run: 50000

Number of cycles run: 4124

Number of cycles run: 10795

Number of cycles run: 2768

Number of cycles run: 2248

Number of cycles run: 26222

Number of cycles run: 1563

Number of cycles run: 2080

Number of cycles run: 2117

Number of cycles run: 5617

Number of cycles run: 469

Number of cycles run: 1512

Number of cycles run: 10386

Number of cycles run: 3578

Number of cycles run: 3008

Number of cycles run: 2493

Number of cycles run: 1348

Number of cycles run: 1286

Number of cycles run: 2262

Number of cycles run: 2792

Av cycles for attraction strength 1.8 is 4955

standard diviation is 8336.73076235

Testing average cycles for attraction strength 1.8

Number of cycles run: 6932

Number of cycles run: 6193

Number of cycles run: 7726

Number of cycles run: 2504

Number of cycles run: 1434

Number of cycles run: 6787

Number of cycles run: 2005

Number of cycles run: 2138

Number of cycles run: 2033

Number of cycles run: 1761

Number of cycles run: 1565

Number of cycles run: 3330

Number of cycles run: 2423

Number of cycles run: 1931

Number of cycles run: 2294

Number of cycles run: 13127

Number of cycles run: 435

Number of cycles run: 2422

Number of cycles run: 1866

Number of cycles run: 772

Number of cycles run: 19929

Number of cycles run: 4086

Number of cycles run: 3295

Number of cycles run: 1872

Number of cycles run: 458

Number of cycles run: 2275

Number of cycles run: 2072

Number of cycles run: 1830

Number of cycles run: 3152

Number of cycles run: 1335

Number of cycles run: 7072

Number of cycles run: 1648

Number of cycles run: 2387

Number of cycles run: 2176

Number of cycles run: 50000

Number of cycles run: 50000

Number of cycles run: 2341

Number of cycles run: 3607

Number of cycles run: 1624

Number of cycles run: 2033

Number of cycles run: 2698

Number of cycles run: 2110

Number of cycles run: 1185

Number of cycles run: 1175

Number of cycles run: 2422

Number of cycles run: 1513

Number of cycles run: 1513

Number of cycles run: 2923

Number of cycles run: 475

Number of cycles run: 1357

Number of cycles run: 2338

Number of cycles run: 1510

Number of cycles run: 50000

Number of cycles run: 2418

Number of cycles run: 1063

Number of cycles run: 452

Number of cycles run: 1349

Number of cycles run: 3262

Number of cycles run: 6003

Number of cycles run: 2040

Number of cycles run: 2126

Number of cycles run: 2756

Number of cycles run: 2009

Number of cycles run: 2476

Number of cycles run: 2480

Number of cycles run: 2675

Number of cycles run: 1936

Number of cycles run: 2769

Number of cycles run: 5673

Number of cycles run: 1875

Number of cycles run: 1265

Number of cycles run: 3172

Number of cycles run: 21502

Number of cycles run: 1095

Number of cycles run: 21421

Number of cycles run: 466

Number of cycles run: 2232

Number of cycles run: 778

Number of cycles run: 7510

Number of cycles run: 3080

Number of cycles run: 2625

Number of cycles run: 2352

Number of cycles run: 3064

Number of cycles run: 896

Number of cycles run: 3198

Number of cycles run: 1505

Number of cycles run: 1411

Number of cycles run: 4529

Number of cycles run: 3772

Number of cycles run: 2959

Number of cycles run: 2143

Number of cycles run: 2319

Number of cycles run: 1288

Number of cycles run: 2868

Number of cycles run: 1777

Number of cycles run: 1100

Number of cycles run: 8411

Number of cycles run: 4581

Number of cycles run: 1845

Number of cycles run: 13083

Av cycles for attraction strength 1.8 is 4756

standard diviation is 8858.24795361

Testing average cycles for attraction strength 1.8

Number of cycles run: 2138

Number of cycles run: 25929

Number of cycles run: 812

Number of cycles run: 1450

Number of cycles run: 2848

Number of cycles run: 1256

Number of cycles run: 23115

Number of cycles run: 1366

Number of cycles run: 8231

Number of cycles run: 2919

Number of cycles run: 1524

Number of cycles run: 1547

Number of cycles run: 2190

Number of cycles run: 449

Number of cycles run: 4895

Number of cycles run: 861

Number of cycles run: 2415

Number of cycles run: 4258

Number of cycles run: 2787

Number of cycles run: 2400

Number of cycles run: 3294

Number of cycles run: 2448

Number of cycles run: 4113

Number of cycles run: 440

Number of cycles run: 1805

Number of cycles run: 3058

Number of cycles run: 50000

Number of cycles run: 3089

Number of cycles run: 2038

Number of cycles run: 3690

Number of cycles run: 1472

Number of cycles run: 3073

Number of cycles run: 428

Number of cycles run: 419

Number of cycles run: 462

Number of cycles run: 1463

Number of cycles run: 783

Number of cycles run: 7904

Number of cycles run: 916

Number of cycles run: 4532

Number of cycles run: 45933

Number of cycles run: 2153

Number of cycles run: 3525

Number of cycles run: 2268

Number of cycles run: 4322

Number of cycles run: 3176

Number of cycles run: 4025

Number of cycles run: 9383

Number of cycles run: 1728

Number of cycles run: 1108

Number of cycles run: 2515

Number of cycles run: 1161

Number of cycles run: 2802

Number of cycles run: 1119

Number of cycles run: 2065

Number of cycles run: 5180

Number of cycles run: 1444

Number of cycles run: 635

Number of cycles run: 8721

Number of cycles run: 1800

Number of cycles run: 3265

Number of cycles run: 472

Number of cycles run: 50000

Number of cycles run: 2360

Number of cycles run: 3896

Number of cycles run: 1207

Number of cycles run: 5422

Number of cycles run: 2280

Number of cycles run: 1152

Number of cycles run: 2287

Number of cycles run: 2156

Number of cycles run: 466

Number of cycles run: 2176

Number of cycles run: 3531

Number of cycles run: 1403

Number of cycles run: 2166

Number of cycles run: 459

Number of cycles run: 4228

Number of cycles run: 9553

Number of cycles run: 829

Number of cycles run: 15867

Number of cycles run: 1202

Number of cycles run: 1047

Number of cycles run: 13804

Number of cycles run: 1610

Number of cycles run: 1592

Number of cycles run: 8195

Number of cycles run: 2731

Number of cycles run: 458

Number of cycles run: 3944

Number of cycles run: 3238

Number of cycles run: 1119

Number of cycles run: 6643

Number of cycles run: 50000

Number of cycles run: 1757

Number of cycles run: 24739

Number of cycles run: 46374

Number of cycles run: 426

Number of cycles run: 3847

Number of cycles run: 1568

Av cycles for attraction strength 1.8 is 5833

standard diviation is 10840.7335783

Testing average cycles for attraction strength 1.8

Number of cycles run: 5674

Number of cycles run: 10619

Number of cycles run: 2266

Number of cycles run: 3057

Number of cycles run: 1475

Number of cycles run: 1452

Number of cycles run: 15140

Number of cycles run: 454

Number of cycles run: 1383

Number of cycles run: 1547

Number of cycles run: 33582

Number of cycles run: 447

Number of cycles run: 6914

Number of cycles run: 3081

Number of cycles run: 2947

Number of cycles run: 6345

Number of cycles run: 4493

Number of cycles run: 1478

Number of cycles run: 5344

Number of cycles run: 1133

Number of cycles run: 1361

Number of cycles run: 3002

Number of cycles run: 2258

Number of cycles run: 1117

Number of cycles run: 5316

Number of cycles run: 1698

Number of cycles run: 5334

Number of cycles run: 4974

Number of cycles run: 9333

Number of cycles run: 1052

Number of cycles run: 3463

Number of cycles run: 50000

Number of cycles run: 2715

Number of cycles run: 4241

Number of cycles run: 1521

Number of cycles run: 1535

Number of cycles run: 1688

Number of cycles run: 2057

Number of cycles run: 752

Number of cycles run: 883

Number of cycles run: 1442

Number of cycles run: 1946

Number of cycles run: 2129

Number of cycles run: 4493

Number of cycles run: 461

Number of cycles run: 4618

Number of cycles run: 2728

Number of cycles run: 2288

Number of cycles run: 2446

Number of cycles run: 9215

Number of cycles run: 718

Number of cycles run: 2857

Number of cycles run: 458

Number of cycles run: 2158

Number of cycles run: 24461

Number of cycles run: 381

Number of cycles run: 50000

Number of cycles run: 2129

Number of cycles run: 603

Number of cycles run: 1302

Number of cycles run: 1642

Number of cycles run: 2319

Number of cycles run: 2045

Number of cycles run: 2997

Number of cycles run: 1626

Number of cycles run: 3029

Number of cycles run: 478

Number of cycles run: 409

Number of cycles run: 50000

Number of cycles run: 3097

Number of cycles run: 7286

Number of cycles run: 4885

Number of cycles run: 50000

Number of cycles run: 2635

Number of cycles run: 977

Number of cycles run: 1671

Number of cycles run: 411

Number of cycles run: 3679

Number of cycles run: 2284

Number of cycles run: 1615

Number of cycles run: 1218

Number of cycles run: 2558

Number of cycles run: 4611

Number of cycles run: 4720

Number of cycles run: 3415

Number of cycles run: 648

Number of cycles run: 2115

Number of cycles run: 5703

Number of cycles run: 3421

Number of cycles run: 50000

Number of cycles run: 1266

Number of cycles run: 50000

Number of cycles run: 3512

Number of cycles run: 702

Number of cycles run: 469

Number of cycles run: 2528

Number of cycles run: 2756

Number of cycles run: 3442

Number of cycles run: 1657

Number of cycles run: 1250

Av cycles for attraction strength 1.8 is 6190

standard diviation is 11966.1260881

Testing average cycles for attraction strength 1.8

Number of cycles run: 4589

Number of cycles run: 14385

Number of cycles run: 467

Number of cycles run: 2075

Number of cycles run: 1817

Number of cycles run: 39832

Number of cycles run: 1305

Number of cycles run: 2835

Number of cycles run: 50000

Number of cycles run: 2287

Number of cycles run: 4077

Number of cycles run: 585

Number of cycles run: 851

Number of cycles run: 1556

Number of cycles run: 1160

Number of cycles run: 9789

Number of cycles run: 562

Number of cycles run: 905

Number of cycles run: 458

Number of cycles run: 2477

Number of cycles run: 3557

Number of cycles run: 2708

Number of cycles run: 1660

Number of cycles run: 2427

Number of cycles run: 1915

Number of cycles run: 5966

Number of cycles run: 2194

Number of cycles run: 2931

Number of cycles run: 447

Number of cycles run: 50000

Number of cycles run: 1460

Number of cycles run: 4653

Number of cycles run: 1654

Number of cycles run: 28385

Number of cycles run: 418

Number of cycles run: 1936

Number of cycles run: 6858

Number of cycles run: 1408

Number of cycles run: 7198

Number of cycles run: 2286

Number of cycles run: 1257

Number of cycles run: 896

Number of cycles run: 4148

Number of cycles run: 12358

Number of cycles run: 2302

Number of cycles run: 480

Number of cycles run: 1758

Number of cycles run: 1826

Number of cycles run: 1928

Number of cycles run: 3624

Number of cycles run: 842

Number of cycles run: 3064

Number of cycles run: 1783

Number of cycles run: 1624

Number of cycles run: 2048

Number of cycles run: 4909

Number of cycles run: 1625

Number of cycles run: 1847

Number of cycles run: 456

Number of cycles run: 1258

Number of cycles run: 19379

Number of cycles run: 2505

Number of cycles run: 1912

Number of cycles run: 3941

Number of cycles run: 3042

Number of cycles run: 2468

Number of cycles run: 1419

Number of cycles run: 39243

Number of cycles run: 50000

Number of cycles run: 50000

Number of cycles run: 1723

Number of cycles run: 29656

Number of cycles run: 1979

Number of cycles run: 1704

Number of cycles run: 14494

Number of cycles run: 681

Number of cycles run: 1950

Number of cycles run: 3165

Number of cycles run: 4703

Number of cycles run: 858

Number of cycles run: 495

Number of cycles run: 3040

Number of cycles run: 3826

Number of cycles run: 2562

Number of cycles run: 1506

Number of cycles run: 2588

Number of cycles run: 3315

Number of cycles run: 1305

Number of cycles run: 2495

Number of cycles run: 50000

Number of cycles run: 4602

Number of cycles run: 50000

Number of cycles run: 2581

Number of cycles run: 1349

Number of cycles run: 2666

Number of cycles run: 3018

Number of cycles run: 2211

Number of cycles run: 2332

Number of cycles run: 5500

Number of cycles run: 2159

Av cycles for attraction strength 1.8 is 7044

standard diviation is 12918.017809