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\_R1.py ===== 1209.9

Testing average cycles for repulsion strength 0

Number of cycles run: 627

Number of cycles run: 544

Number of cycles run: 1358

Number of cycles run: 1071

Number of cycles run: 1008

Number of cycles run: 7122

Number of cycles run: 1217

Number of cycles run: 1941

Number of cycles run: 814

Number of cycles run: 641

Number of cycles run: 373

Number of cycles run: 411

Number of cycles run: 805

Number of cycles run: 440

Number of cycles run: 1146

Number of cycles run: 461

Number of cycles run: 1386

Number of cycles run: 1525

Number of cycles run: 4063

Number of cycles run: 420

Number of cycles run: 2143

Number of cycles run: 1128

Number of cycles run: 691

Number of cycles run: 468

Number of cycles run: 3064

Number of cycles run: 458

Number of cycles run: 1072

Number of cycles run: 516

Number of cycles run: 974

Number of cycles run: 533

Number of cycles run: 535

Number of cycles run: 1105

Number of cycles run: 732

Number of cycles run: 562

Number of cycles run: 571

Number of cycles run: 477

Number of cycles run: 1978

Number of cycles run: 491

Number of cycles run: 448

Number of cycles run: 479

Number of cycles run: 452

Number of cycles run: 555

Number of cycles run: 476

Number of cycles run: 655

Number of cycles run: 434

Number of cycles run: 938

Number of cycles run: 745

Number of cycles run: 651

Number of cycles run: 532

Number of cycles run: 2321

Number of cycles run: 578

Number of cycles run: 580

Number of cycles run: 419

Number of cycles run: 447

Number of cycles run: 505

Number of cycles run: 579

Number of cycles run: 510

Number of cycles run: 531

Number of cycles run: 443

Number of cycles run: 1023

Number of cycles run: 576

Number of cycles run: 400

Number of cycles run: 462

Number of cycles run: 435

Number of cycles run: 568

Number of cycles run: 389

Number of cycles run: 851

Number of cycles run: 459

Number of cycles run: 7535

Number of cycles run: 346

Number of cycles run: 1117

Number of cycles run: 663

Number of cycles run: 3392

Number of cycles run: 481

Number of cycles run: 1514

Number of cycles run: 5247

Number of cycles run: 616

Number of cycles run: 1007

Number of cycles run: 556

Number of cycles run: 455

Number of cycles run: 846

Number of cycles run: 1887

Number of cycles run: 633

Number of cycles run: 482

Number of cycles run: 344

Number of cycles run: 611

Number of cycles run: 974

Number of cycles run: 872

Number of cycles run: 455

Number of cycles run: 475

Number of cycles run: 450

Number of cycles run: 530

Number of cycles run: 426

Number of cycles run: 655

Number of cycles run: 849

Number of cycles run: 531

Number of cycles run: 1524

Number of cycles run: 1464

Number of cycles run: 572

Number of cycles run: 437

Av cycles for repulsion strength 0 is 1012

standard diviation is 1190.89747313

Testing average cycles for repulsion strength 0

Number of cycles run: 1184

Number of cycles run: 5310

Number of cycles run: 2639

Number of cycles run: 655

Number of cycles run: 606

Number of cycles run: 462

Number of cycles run: 710

Number of cycles run: 1582

Number of cycles run: 976

Number of cycles run: 641

Number of cycles run: 453

Number of cycles run: 1017

Number of cycles run: 409

Number of cycles run: 649

Number of cycles run: 576

Number of cycles run: 376

Number of cycles run: 518

Number of cycles run: 572

Number of cycles run: 548

Number of cycles run: 410

Number of cycles run: 498

Number of cycles run: 562

Number of cycles run: 436

Number of cycles run: 431

Number of cycles run: 416

Number of cycles run: 599

Number of cycles run: 529

Number of cycles run: 1103

Number of cycles run: 613

Number of cycles run: 453

Number of cycles run: 459

Number of cycles run: 696

Number of cycles run: 546

Number of cycles run: 825

Number of cycles run: 709

Number of cycles run: 1578

Number of cycles run: 1045

Number of cycles run: 979

Number of cycles run: 647

Number of cycles run: 1053

Number of cycles run: 447

Number of cycles run: 415

Number of cycles run: 414

Number of cycles run: 463

Number of cycles run: 608

Number of cycles run: 787

Number of cycles run: 975

Number of cycles run: 6376

Number of cycles run: 441

Number of cycles run: 744

Number of cycles run: 435

Number of cycles run: 477

Number of cycles run: 637

Number of cycles run: 451

Number of cycles run: 855

Number of cycles run: 1049

Number of cycles run: 559

Number of cycles run: 2216

Number of cycles run: 1313

Number of cycles run: 1340

Number of cycles run: 854

Number of cycles run: 807

Number of cycles run: 411

Number of cycles run: 580

Number of cycles run: 563

Number of cycles run: 556

Number of cycles run: 973

Number of cycles run: 580

Number of cycles run: 528

Number of cycles run: 443

Number of cycles run: 520

Number of cycles run: 453

Number of cycles run: 845

Number of cycles run: 449

Number of cycles run: 1636

Number of cycles run: 419

Number of cycles run: 394

Number of cycles run: 647

Number of cycles run: 1624

Number of cycles run: 403

Number of cycles run: 1716

Number of cycles run: 551

Number of cycles run: 1162

Number of cycles run: 2475

Number of cycles run: 407

Number of cycles run: 1079

Number of cycles run: 483

Number of cycles run: 4795

Number of cycles run: 734

Number of cycles run: 678

Number of cycles run: 388

Number of cycles run: 563

Number of cycles run: 1736

Number of cycles run: 1379

Number of cycles run: 560

Number of cycles run: 539

Number of cycles run: 417

Number of cycles run: 3294

Number of cycles run: 566

Number of cycles run: 558

Av cycles for repulsion strength 0 is 932

standard diviation is 962.300323299

Testing average cycles for repulsion strength 0

Number of cycles run: 599

Number of cycles run: 10093

Number of cycles run: 716

Number of cycles run: 6192

Number of cycles run: 2639

Number of cycles run: 624

Number of cycles run: 1043

Number of cycles run: 592

Number of cycles run: 735

Number of cycles run: 398

Number of cycles run: 587

Number of cycles run: 1939

Number of cycles run: 573

Number of cycles run: 566

Number of cycles run: 558

Number of cycles run: 449

Number of cycles run: 546

Number of cycles run: 1011

Number of cycles run: 378

Number of cycles run: 575

Number of cycles run: 418

Number of cycles run: 429

Number of cycles run: 557

Number of cycles run: 739

Number of cycles run: 593

Number of cycles run: 821

Number of cycles run: 521

Number of cycles run: 756

Number of cycles run: 937

Number of cycles run: 471

Number of cycles run: 582

Number of cycles run: 551

Number of cycles run: 7058

Number of cycles run: 783

Number of cycles run: 1946

Number of cycles run: 572

Number of cycles run: 561

Number of cycles run: 2093

Number of cycles run: 872

Number of cycles run: 435

Number of cycles run: 11787

Number of cycles run: 787

Number of cycles run: 687

Number of cycles run: 759

Number of cycles run: 532

Number of cycles run: 588

Number of cycles run: 502

Number of cycles run: 766

Number of cycles run: 548

Number of cycles run: 3058

Number of cycles run: 469

Number of cycles run: 1302

Number of cycles run: 520

Number of cycles run: 916

Number of cycles run: 550

Number of cycles run: 570

Number of cycles run: 376

Number of cycles run: 1146

Number of cycles run: 1103

Number of cycles run: 427

Number of cycles run: 388

Number of cycles run: 572

Number of cycles run: 476

Number of cycles run: 1082

Number of cycles run: 1617

Number of cycles run: 566

Number of cycles run: 630

Number of cycles run: 564

Number of cycles run: 547

Number of cycles run: 1670

Number of cycles run: 437

Number of cycles run: 473

Number of cycles run: 412

Number of cycles run: 531

Number of cycles run: 553

Number of cycles run: 800

Number of cycles run: 434

Number of cycles run: 7384

Number of cycles run: 2621

Number of cycles run: 510

Number of cycles run: 642

Number of cycles run: 1671

Number of cycles run: 764

Number of cycles run: 499

Number of cycles run: 455

Number of cycles run: 887

Number of cycles run: 494

Number of cycles run: 904

Number of cycles run: 2023

Number of cycles run: 1093

Number of cycles run: 758

Number of cycles run: 544

Number of cycles run: 3190

Number of cycles run: 490

Number of cycles run: 547

Number of cycles run: 1156

Number of cycles run: 939

Number of cycles run: 5704

Number of cycles run: 546

Number of cycles run: 784

Av cycles for repulsion strength 0 is 1262

standard diviation is 1886.5772448

Testing average cycles for repulsion strength 0

Number of cycles run: 539

Number of cycles run: 1060

Number of cycles run: 497

Number of cycles run: 735

Number of cycles run: 476

Number of cycles run: 914

Number of cycles run: 498

Number of cycles run: 484

Number of cycles run: 2531

Number of cycles run: 876

Number of cycles run: 485

Number of cycles run: 1204

Number of cycles run: 926

Number of cycles run: 541

Number of cycles run: 938

Number of cycles run: 388

Number of cycles run: 1728

Number of cycles run: 493

Number of cycles run: 579

Number of cycles run: 1194

Number of cycles run: 587

Number of cycles run: 1289

Number of cycles run: 810

Number of cycles run: 686

Number of cycles run: 1672

Number of cycles run: 641

Number of cycles run: 468

Number of cycles run: 519

Number of cycles run: 2940

Number of cycles run: 2347

Number of cycles run: 537

Number of cycles run: 684

Number of cycles run: 426

Number of cycles run: 968

Number of cycles run: 583

Number of cycles run: 468

Number of cycles run: 512

Number of cycles run: 1166

Number of cycles run: 533

Number of cycles run: 554

Number of cycles run: 2019

Number of cycles run: 1077

Number of cycles run: 687

Number of cycles run: 538

Number of cycles run: 493

Number of cycles run: 462

Number of cycles run: 545

Number of cycles run: 810

Number of cycles run: 2540

Number of cycles run: 628

Number of cycles run: 583

Number of cycles run: 440

Number of cycles run: 11366

Number of cycles run: 419

Number of cycles run: 548

Number of cycles run: 661

Number of cycles run: 491

Number of cycles run: 659

Number of cycles run: 845

Number of cycles run: 712

Number of cycles run: 866

Number of cycles run: 6914

Number of cycles run: 595

Number of cycles run: 3288

Number of cycles run: 1504

Number of cycles run: 558

Number of cycles run: 456

Number of cycles run: 588

Number of cycles run: 613

Number of cycles run: 552

Number of cycles run: 866

Number of cycles run: 2195

Number of cycles run: 1479

Number of cycles run: 582

Number of cycles run: 773

Number of cycles run: 395

Number of cycles run: 3803

Number of cycles run: 472

Number of cycles run: 566

Number of cycles run: 2006

Number of cycles run: 463

Number of cycles run: 901

Number of cycles run: 1196

Number of cycles run: 454

Number of cycles run: 1758

Number of cycles run: 3043

Number of cycles run: 1275

Number of cycles run: 1102

Number of cycles run: 410

Number of cycles run: 442

Number of cycles run: 571

Number of cycles run: 616

Number of cycles run: 528

Number of cycles run: 536

Number of cycles run: 366

Number of cycles run: 1580

Number of cycles run: 2112

Number of cycles run: 17522

Number of cycles run: 1424

Number of cycles run: 1277

Av cycles for repulsion strength 0 is 1286

standard diviation is 2144.6333181

Testing average cycles for repulsion strength 0

Number of cycles run: 3474

Number of cycles run: 641

Number of cycles run: 553

Number of cycles run: 611

Number of cycles run: 21943

Number of cycles run: 2268

Number of cycles run: 448

Number of cycles run: 903

Number of cycles run: 540

Number of cycles run: 842

Number of cycles run: 823

Number of cycles run: 616

Number of cycles run: 470

Number of cycles run: 552

Number of cycles run: 647

Number of cycles run: 1015

Number of cycles run: 3947

Number of cycles run: 5977

Number of cycles run: 445

Number of cycles run: 942

Number of cycles run: 565

Number of cycles run: 516

Number of cycles run: 366

Number of cycles run: 501

Number of cycles run: 515

Number of cycles run: 700

Number of cycles run: 992

Number of cycles run: 551

Number of cycles run: 11091

Number of cycles run: 640

Number of cycles run: 1411

Number of cycles run: 550

Number of cycles run: 455

Number of cycles run: 604

Number of cycles run: 913

Number of cycles run: 464

Number of cycles run: 5496

Number of cycles run: 2614

Number of cycles run: 558

Number of cycles run: 710

Number of cycles run: 1049

Number of cycles run: 599

Number of cycles run: 572

Number of cycles run: 351

Number of cycles run: 735

Number of cycles run: 630

Number of cycles run: 672

Number of cycles run: 1390

Number of cycles run: 516

Number of cycles run: 872

Number of cycles run: 789

Number of cycles run: 2606

Number of cycles run: 5127

Number of cycles run: 425

Number of cycles run: 582

Number of cycles run: 434

Number of cycles run: 468

Number of cycles run: 1236

Number of cycles run: 2864

Number of cycles run: 693

Number of cycles run: 765

Number of cycles run: 749

Number of cycles run: 560

Number of cycles run: 584

Number of cycles run: 1038

Number of cycles run: 30715

Number of cycles run: 1523

Number of cycles run: 556

Number of cycles run: 621

Number of cycles run: 2216

Number of cycles run: 491

Number of cycles run: 1308

Number of cycles run: 561

Number of cycles run: 1284

Number of cycles run: 474

Number of cycles run: 337

Number of cycles run: 1036

Number of cycles run: 541

Number of cycles run: 578

Number of cycles run: 453

Number of cycles run: 1178

Number of cycles run: 444

Number of cycles run: 858

Number of cycles run: 469

Number of cycles run: 525

Number of cycles run: 882

Number of cycles run: 2521

Number of cycles run: 1036

Number of cycles run: 642

Number of cycles run: 642

Number of cycles run: 552

Number of cycles run: 587

Number of cycles run: 476

Number of cycles run: 491

Number of cycles run: 2143

Number of cycles run: 3076

Number of cycles run: 844

Number of cycles run: 528

Number of cycles run: 478

Number of cycles run: 820

Av cycles for repulsion strength 0 is 1660

standard diviation is 3879.56547836

Testing average cycles for repulsion strength 0

Number of cycles run: 505

Number of cycles run: 704

Number of cycles run: 1252

Number of cycles run: 839

Number of cycles run: 623

Number of cycles run: 628

Number of cycles run: 586

Number of cycles run: 568

Number of cycles run: 779

Number of cycles run: 547

Number of cycles run: 1025

Number of cycles run: 685

Number of cycles run: 564

Number of cycles run: 526

Number of cycles run: 1141

Number of cycles run: 1224

Number of cycles run: 1371

Number of cycles run: 1069

Number of cycles run: 2622

Number of cycles run: 523

Number of cycles run: 658

Number of cycles run: 570

Number of cycles run: 511

Number of cycles run: 984

Number of cycles run: 541

Number of cycles run: 482

Number of cycles run: 571

Number of cycles run: 2556

Number of cycles run: 779

Number of cycles run: 981

Number of cycles run: 564

Number of cycles run: 493

Number of cycles run: 476

Number of cycles run: 872

Number of cycles run: 502

Number of cycles run: 873

Number of cycles run: 600

Number of cycles run: 426

Number of cycles run: 521

Number of cycles run: 470

Number of cycles run: 407

Number of cycles run: 1275

Number of cycles run: 1147

Number of cycles run: 552

Number of cycles run: 571

Number of cycles run: 535

Number of cycles run: 1209

Number of cycles run: 3316

Number of cycles run: 1897

Number of cycles run: 363

Number of cycles run: 590

Number of cycles run: 1746

Number of cycles run: 6073

Number of cycles run: 587

Number of cycles run: 547

Number of cycles run: 1212

Number of cycles run: 426

Number of cycles run: 658

Number of cycles run: 426

Number of cycles run: 672

Number of cycles run: 546

Number of cycles run: 566

Number of cycles run: 446

Number of cycles run: 534

Number of cycles run: 1047

Number of cycles run: 450

Number of cycles run: 606

Number of cycles run: 557

Number of cycles run: 1083

Number of cycles run: 2654

Number of cycles run: 511

Number of cycles run: 579

Number of cycles run: 1403

Number of cycles run: 458

Number of cycles run: 1376

Number of cycles run: 456

Number of cycles run: 757

Number of cycles run: 417

Number of cycles run: 951

Number of cycles run: 710

Number of cycles run: 2024

Number of cycles run: 1314

Number of cycles run: 589

Number of cycles run: 1822

Number of cycles run: 526

Number of cycles run: 525

Number of cycles run: 832

Number of cycles run: 697

Number of cycles run: 575

Number of cycles run: 3905

Number of cycles run: 494

Number of cycles run: 611

Number of cycles run: 475

Number of cycles run: 4228

Number of cycles run: 570

Number of cycles run: 2910

Number of cycles run: 401

Number of cycles run: 472

Number of cycles run: 517

Number of cycles run: 1550

Av cycles for repulsion strength 0 is 975

standard diviation is 895.291538996

Testing average cycles for repulsion strength 0

Number of cycles run: 2164

Number of cycles run: 454

Number of cycles run: 991

Number of cycles run: 351

Number of cycles run: 589

Number of cycles run: 2472

Number of cycles run: 617

Number of cycles run: 557

Number of cycles run: 408

Number of cycles run: 873

Number of cycles run: 389

Number of cycles run: 548

Number of cycles run: 6848

Number of cycles run: 879

Number of cycles run: 395

Number of cycles run: 1762

Number of cycles run: 448

Number of cycles run: 1695

Number of cycles run: 2505

Number of cycles run: 949

Number of cycles run: 1167

Number of cycles run: 1127

Number of cycles run: 892

Number of cycles run: 480

Number of cycles run: 542

Number of cycles run: 681

Number of cycles run: 968

Number of cycles run: 15380

Number of cycles run: 1277

Number of cycles run: 495

Number of cycles run: 1632

Number of cycles run: 538

Number of cycles run: 3558

Number of cycles run: 463

Number of cycles run: 457

Number of cycles run: 437

Number of cycles run: 606

Number of cycles run: 482

Number of cycles run: 1129

Number of cycles run: 412

Number of cycles run: 12295

Number of cycles run: 504

Number of cycles run: 435

Number of cycles run: 1361

Number of cycles run: 7542

Number of cycles run: 3345

Number of cycles run: 636

Number of cycles run: 1065

Number of cycles run: 390

Number of cycles run: 557

Number of cycles run: 367

Number of cycles run: 2438

Number of cycles run: 566

Number of cycles run: 687

Number of cycles run: 1272

Number of cycles run: 765

Number of cycles run: 1508

Number of cycles run: 943

Number of cycles run: 613

Number of cycles run: 1522

Number of cycles run: 1308

Number of cycles run: 486

Number of cycles run: 1593

Number of cycles run: 599

Number of cycles run: 615

Number of cycles run: 3522

Number of cycles run: 745

Number of cycles run: 908

Number of cycles run: 587

Number of cycles run: 461

Number of cycles run: 598

Number of cycles run: 482

Number of cycles run: 4515

Number of cycles run: 1447

Number of cycles run: 534

Number of cycles run: 555

Number of cycles run: 520

Number of cycles run: 9112

Number of cycles run: 512

Number of cycles run: 410

Number of cycles run: 876

Number of cycles run: 561

Number of cycles run: 349

Number of cycles run: 1335

Number of cycles run: 731

Number of cycles run: 528

Number of cycles run: 545

Number of cycles run: 8905

Number of cycles run: 451

Number of cycles run: 1072

Number of cycles run: 530

Number of cycles run: 1115

Number of cycles run: 484

Number of cycles run: 378

Number of cycles run: 6485

Number of cycles run: 1447

Number of cycles run: 2609

Number of cycles run: 511

Number of cycles run: 1649

Number of cycles run: 876

Av cycles for repulsion strength 0 is 1583

standard diviation is 2448.85424299

Testing average cycles for repulsion strength 0

Number of cycles run: 1002

Number of cycles run: 1167

Number of cycles run: 909

Number of cycles run: 616

Number of cycles run: 1652

Number of cycles run: 470

Number of cycles run: 576

Number of cycles run: 379

Number of cycles run: 681

Number of cycles run: 1037

Number of cycles run: 2389

Number of cycles run: 1991

Number of cycles run: 490

Number of cycles run: 463

Number of cycles run: 416

Number of cycles run: 857

Number of cycles run: 612

Number of cycles run: 947

Number of cycles run: 661

Number of cycles run: 463

Number of cycles run: 845

Number of cycles run: 2420

Number of cycles run: 1076

Number of cycles run: 666

Number of cycles run: 868

Number of cycles run: 504

Number of cycles run: 1255

Number of cycles run: 557

Number of cycles run: 720

Number of cycles run: 4001

Number of cycles run: 460

Number of cycles run: 15427

Number of cycles run: 1160

Number of cycles run: 423

Number of cycles run: 614

Number of cycles run: 553

Number of cycles run: 563

Number of cycles run: 3471

Number of cycles run: 440

Number of cycles run: 1713

Number of cycles run: 2144

Number of cycles run: 710

Number of cycles run: 490

Number of cycles run: 1690

Number of cycles run: 569

Number of cycles run: 6840

Number of cycles run: 1593

Number of cycles run: 508

Number of cycles run: 412

Number of cycles run: 866

Number of cycles run: 523

Number of cycles run: 775

Number of cycles run: 540

Number of cycles run: 591

Number of cycles run: 489

Number of cycles run: 635

Number of cycles run: 565

Number of cycles run: 411

Number of cycles run: 592

Number of cycles run: 430

Number of cycles run: 2176

Number of cycles run: 1481

Number of cycles run: 753

Number of cycles run: 1189

Number of cycles run: 1478

Number of cycles run: 527

Number of cycles run: 371

Number of cycles run: 495

Number of cycles run: 828

Number of cycles run: 1269

Number of cycles run: 463

Number of cycles run: 452

Number of cycles run: 964

Number of cycles run: 1436

Number of cycles run: 594

Number of cycles run: 518

Number of cycles run: 990

Number of cycles run: 534

Number of cycles run: 1548

Number of cycles run: 15711

Number of cycles run: 489

Number of cycles run: 772

Number of cycles run: 454

Number of cycles run: 536

Number of cycles run: 589

Number of cycles run: 653

Number of cycles run: 3001

Number of cycles run: 499

Number of cycles run: 824

Number of cycles run: 1275

Number of cycles run: 466

Number of cycles run: 1565

Number of cycles run: 602

Number of cycles run: 484

Number of cycles run: 733

Number of cycles run: 1550

Number of cycles run: 6524

Number of cycles run: 532

Number of cycles run: 708

Number of cycles run: 1324

Av cycles for repulsion strength 0 is 1342

standard diviation is 2292.97922002

Testing average cycles for repulsion strength 0

Number of cycles run: 560

Number of cycles run: 713

Number of cycles run: 599

Number of cycles run: 1035

Number of cycles run: 1599

Number of cycles run: 1039

Number of cycles run: 1131

Number of cycles run: 620

Number of cycles run: 532

Number of cycles run: 651

Number of cycles run: 532

Number of cycles run: 498

Number of cycles run: 509

Number of cycles run: 530

Number of cycles run: 1304

Number of cycles run: 890

Number of cycles run: 2148

Number of cycles run: 1155

Number of cycles run: 2312

Number of cycles run: 359

Number of cycles run: 568

Number of cycles run: 750

Number of cycles run: 1421

Number of cycles run: 381

Number of cycles run: 491

Number of cycles run: 1485

Number of cycles run: 757

Number of cycles run: 2767

Number of cycles run: 799

Number of cycles run: 624

Number of cycles run: 477

Number of cycles run: 799

Number of cycles run: 2092

Number of cycles run: 546

Number of cycles run: 1998

Number of cycles run: 729

Number of cycles run: 565

Number of cycles run: 537

Number of cycles run: 408

Number of cycles run: 500

Number of cycles run: 400

Number of cycles run: 459

Number of cycles run: 840

Number of cycles run: 583

Number of cycles run: 377

Number of cycles run: 552

Number of cycles run: 392

Number of cycles run: 492

Number of cycles run: 550

Number of cycles run: 431

Number of cycles run: 975

Number of cycles run: 556

Number of cycles run: 859

Number of cycles run: 545

Number of cycles run: 574

Number of cycles run: 649

Number of cycles run: 5649

Number of cycles run: 812

Number of cycles run: 652

Number of cycles run: 367

Number of cycles run: 664

Number of cycles run: 2859

Number of cycles run: 392

Number of cycles run: 474

Number of cycles run: 433

Number of cycles run: 444

Number of cycles run: 1150

Number of cycles run: 3723

Number of cycles run: 1120

Number of cycles run: 749

Number of cycles run: 1744

Number of cycles run: 558

Number of cycles run: 529

Number of cycles run: 1240

Number of cycles run: 1368

Number of cycles run: 9153

Number of cycles run: 420

Number of cycles run: 1056

Number of cycles run: 589

Number of cycles run: 436

Number of cycles run: 544

Number of cycles run: 500

Number of cycles run: 596

Number of cycles run: 574

Number of cycles run: 507

Number of cycles run: 596

Number of cycles run: 595

Number of cycles run: 583

Number of cycles run: 1052

Number of cycles run: 425

Number of cycles run: 547

Number of cycles run: 655

Number of cycles run: 439

Number of cycles run: 1062

Number of cycles run: 2639

Number of cycles run: 2758

Number of cycles run: 681

Number of cycles run: 561

Number of cycles run: 587

Number of cycles run: 831

Av cycles for repulsion strength 0 is 999

standard diviation is 1143.16382041

Testing average cycles for repulsion strength 0

Number of cycles run: 959

Number of cycles run: 2153

Number of cycles run: 506

Number of cycles run: 427

Number of cycles run: 377

Number of cycles run: 546

Number of cycles run: 576

Number of cycles run: 4278

Number of cycles run: 403

Number of cycles run: 551

Number of cycles run: 475

Number of cycles run: 441

Number of cycles run: 747

Number of cycles run: 617

Number of cycles run: 439

Number of cycles run: 455

Number of cycles run: 1180

Number of cycles run: 648

Number of cycles run: 490

Number of cycles run: 2741

Number of cycles run: 515

Number of cycles run: 1161

Number of cycles run: 606

Number of cycles run: 1118

Number of cycles run: 1248

Number of cycles run: 524

Number of cycles run: 500

Number of cycles run: 9153

Number of cycles run: 1955

Number of cycles run: 5033

Number of cycles run: 460

Number of cycles run: 601

Number of cycles run: 1826

Number of cycles run: 3014

Number of cycles run: 540

Number of cycles run: 1238

Number of cycles run: 518

Number of cycles run: 643

Number of cycles run: 402

Number of cycles run: 621

Number of cycles run: 475

Number of cycles run: 592

Number of cycles run: 418

Number of cycles run: 520

Number of cycles run: 1193

Number of cycles run: 619

Number of cycles run: 518

Number of cycles run: 883

Number of cycles run: 714

Number of cycles run: 563

Number of cycles run: 528

Number of cycles run: 451

Number of cycles run: 1642

Number of cycles run: 521

Number of cycles run: 471

Number of cycles run: 2531

Number of cycles run: 474

Number of cycles run: 446

Number of cycles run: 440

Number of cycles run: 1030

Number of cycles run: 1641

Number of cycles run: 1534

Number of cycles run: 814

Number of cycles run: 809

Number of cycles run: 1033

Number of cycles run: 434

Number of cycles run: 584

Number of cycles run: 971

Number of cycles run: 404

Number of cycles run: 653

Number of cycles run: 451

Number of cycles run: 647

Number of cycles run: 568

Number of cycles run: 1776

Number of cycles run: 2347

Number of cycles run: 830

Number of cycles run: 461

Number of cycles run: 534

Number of cycles run: 646

Number of cycles run: 633

Number of cycles run: 680

Number of cycles run: 443

Number of cycles run: 3494

Number of cycles run: 415

Number of cycles run: 730

Number of cycles run: 577

Number of cycles run: 1386

Number of cycles run: 3244

Number of cycles run: 532

Number of cycles run: 567

Number of cycles run: 702

Number of cycles run: 392

Number of cycles run: 567

Number of cycles run: 1794

Number of cycles run: 531

Number of cycles run: 961

Number of cycles run: 1944

Number of cycles run: 1583

Number of cycles run: 514

Number of cycles run: 345

Av cycles for repulsion strength 0 is 1048

standard diviation is 1179.41728785

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