

```

% By Huanyu Liu

% 100986552

% For elec4700 assignment1 part2


% Initialize the parameters

n=10; % number of particles

T=300; % temperture of the background

L=200e-9; % length of the frame (figure 1)

H=100e-9; % height of the frame

tao=0.2e-12; % the given mean time between collisions

m0=9.109e-31; % mass of a particle

mn=0.26*m0; % effective mass

kb=1.38e-23; % constant coeffient

vth=sqrt(2*kb*T/mn); % average speed of each particle

% Initialize the positions of each particle

Pox = L*rand(1,n);

Poy = H*rand(1,n);

% Initialize the speed of each particle and measure the initial temperature

for num=1:n

Vx(num) = randn()*vth/sqrt(2);

Vy(num) = randn()*vth/sqrt(2);

end

```

```

Tmeasured = sum(Vx.^2 + Vy.^2).*mn./(2*kb*n);

% draw the first locations of the particles and the blocks

figure(1)

plot(Pox,Poy,'.');

xlim([0 L]);

ylim([0 H]);

hold on

% more parameters that will be used in the loop

TStop = 1e-11; % max running time

t=0; % start time

dt=1e-14; % step time

intervals=round(TStop/dt); % number of steps

Vz=zeros(1,intervals); % initial the size of all changing speed (will be used in hist)

ddt = 0; % time since last timestep

collisions=0; % number of timesteps

time=0; % initialize the duration between collisions

path=zeros(1,n); % initialize the size of path length

while t < TStop

    z=round(1+t/dt); % index, the z-th interval between collisions

    Pscat = 1-exp(-ddt/tao); % scattering possibility

    if Pscat > rand % if scatter

        time=time+ddt; % total time when scattering occur

```

```

        ddt=0; % reset the parameter for the possibility as required

        collisions=collisions+1; % one more collision occurs

        Vx = randn(1,n).*vth/sqrt(2);

        Vy = randn(1,n).*vth/sqrt(2); % velocity changes (in maxwell-boltzmann
distribution)

        average_path_length(collisions)=sum(path)/n; % average path length for this
interval

        path=zeros(1,n); % reset the path length

    else % nothing happens, same speed the next duration of time step

        path=path+sqrt(Vx.^2+Vy.^2).*dt; % add the next timestep's path length to the total
path length

        ddt=ddt+dt; % add the timestep size to the parameter

    end

    Tmeasured = sum(Vx.^2 + Vy.^2).*mn. / (2*kb*n);

    Vact=sqrt(sum(Vx.^2+Vy.^2)/n); % the average speed of all the particles

    Vz(z)=Vact; % will be used to get the distribution in hist

    tPx = Pox + Vx.*dt; % predict the position

    tPy = Poy + Vy.*dt;

    % when the particles go to the right and left border

    px1 = Pox >= L;

    Pox(px1) = Pox(px1) - L;

    px2 = Pox <= 0;

    Pox(px2) = Pox(px2) + L;

```

```

py1 = tPy <= 0;

Vy(py1) = Vy(py1) .* (-1);

py2 = tPy >= H;

Vy(py2) = Vy(py2) .* (-1);

    % now all velocity have been modified to the correct direction,

    % update the position

Pox = Pox + Vx.*dt;

Poy = Poy + Vy.*dt;


figure(1)

plot(Pox,Poy,'.');

xlim([0 L]);

ylim([0 H]);

hold on


figure(2)

plot(t,Tmeasured,'.r');

title('temperature plot');

hold on


fprintf('time: %g (%5.2g %%) temperature: %g \n', t/dt, t / TStop * 100, Tmeasured);

```

```

        pause(0.01)

        t=t+dt;

end

        figure(3)

        hist(Vz);

        title('velocity histogram');

        xlabel('velocity');

        fprintf(' vth: %g\n',vth);

        mean_time_between_collisions=time/collisions;

        MFP=sum(average_path_length)/collisions;

        fprintf(' MFP:%g m \n mean time between collisions: %g s\n', MFP,
mean_time_between_collisions);

```

```

time: 0 ( 0 %) temperature: 506.233

time: 1 ( 0.1 %) temperature: 506.233

time: 2 ( 0.2 %) temperature: 506.233

time: 3 ( 0.3 %) temperature: 506.233

time: 4 ( 0.4 %) temperature: 392.991

time: 5 ( 0.5 %) temperature: 392.991

time: 6 ( 0.6 %) temperature: 392.991

time: 7 ( 0.7 %) temperature: 392.991

time: 8 ( 0.8 %) temperature: 392.991

time: 9 ( 0.9 %) temperature: 209.916

```

time: 10 (1 %) temperature: 209.916

time: 11 (1.1 %) temperature: 209.916

time: 12 (1.2 %) temperature: 209.916

time: 13 (1.3 %) temperature: 209.916

time: 14 (1.4 %) temperature: 265.005

time: 15 (1.5 %) temperature: 265.005

time: 16 (1.6 %) temperature: 265.005

time: 17 (1.7 %) temperature: 265.005

time: 18 (1.8 %) temperature: 265.005

time: 19 (1.9 %) temperature: 553.983

time: 20 (2 %) temperature: 553.983

time: 21 (2.1 %) temperature: 553.983

time: 22 (2.2 %) temperature: 553.983

time: 23 (2.3 %) temperature: 374.116

time: 24 (2.4 %) temperature: 374.116

time: 25 (2.5 %) temperature: 374.116

time: 26 (2.6 %) temperature: 374.116

time: 27 (2.7 %) temperature: 374.116

time: 28 (2.8 %) temperature: 312.922

time: 29 (2.9 %) temperature: 312.922

time: 30 (3 %) temperature: 312.922

time: 31 (3.1 %) temperature: 312.922

time: 32 (3.2 %) temperature: 312.922

time: 33 (3.3 %) temperature: 312.922

time: 34 (3.4 %) temperature: 312.922

time: 35 (3.5 %) temperature: 312.922

time: 36 (3.6 %) temperature: 312.922

time: 37 (3.7 %) temperature: 312.922

time: 38 (3.8 %) temperature: 312.922

time: 39 (3.9 %) temperature: 312.922

time: 40 (4 %) temperature: 308.146

time: 41 (4.1 %) temperature: 308.146

time: 42 (4.2 %) temperature: 308.146

time: 43 (4.3 %) temperature: 308.146

time: 44 (4.4 %) temperature: 449.529

time: 45 (4.5 %) temperature: 449.529

time: 46 (4.6 %) temperature: 449.529

time: 47 (4.7 %) temperature: 449.529

time: 48 (4.8 %) temperature: 449.529

time: 49 (4.9 %) temperature: 449.529

time: 50 (5 %) temperature: 449.529

time: 51 (5.1 %) temperature: 266.858

time: 52 (5.2 %) temperature: 266.858

time: 53 (5.3 %) temperature: 266.858

time: 54 (5.4 %) temperature: 266.858

time: 55 (5.5 %) temperature: 266.858

time: 56 (5.6 %) temperature: 266.858

time: 57 (5.7 %) temperature: 266.858

time: 58 (5.8 %) temperature: 266.858

time: 59 (5.9 %) temperature: 266.858

time: 60 (6 %) temperature: 373.278

time: 61 (6.1 %) temperature: 373.278

time: 62 (6.2 %) temperature: 373.278

time: 63 (6.3 %) temperature: 373.278

time: 64 (6.4 %) temperature: 373.278

time: 65 (6.5 %) temperature: 373.278

time: 66 (6.6 %) temperature: 373.278

time: 67 (6.7 %) temperature: 373.278

time: 68 (6.8 %) temperature: 373.278

time: 69 (6.9 %) temperature: 217.991

time: 70 (7 %) temperature: 217.991

time: 71 (7.1 %) temperature: 217.991

time: 72 (7.2 %) temperature: 217.991

time: 73 (7.3 %) temperature: 246.208

time: 74 (7.4 %) temperature: 246.208

time: 75 (7.5 %) temperature: 246.208

time: 76 (7.6 %) temperature: 246.208

time: 77 (7.7 %) temperature: 246.208

time: 78 (7.8 %) temperature: 246.208

time: 79 (7.9 %) temperature: 246.208

time: 80 (8 %) temperature: 246.208

time: 81 (8.1 %) temperature: 246.208

time: 82 (8.2 %) temperature: 246.208

time: 83 (8.3 %) temperature: 246.208

time: 84 (8.4 %) temperature: 246.208

time: 85 (8.5 %) temperature: 384.17

time: 86 (8.6 %) temperature: 384.17

time: 87 (8.7 %) temperature: 384.17

time: 88 (8.8 %) temperature: 384.17

time: 89 (8.9 %) temperature: 384.17

time: 90 (9 %) temperature: 384.17

time: 91 (9.1 %) temperature: 384.17

time: 92 (9.2 %) temperature: 309.909

time: 93 (9.3 %) temperature: 309.909

time: 94 (9.4 %) temperature: 309.909

time: 95 (9.5 %) temperature: 309.909

time: 96 (9.6 %) temperature: 309.909

time: 97 (9.7 %) temperature: 328.044

time: 98 (9.8 %) temperature: 328.044

time: 99 (9.9 %) temperature: 328.044

time: 100 (10 %) temperature: 328.044

time: 101 (10 %) temperature: 328.044

time: 102 (10 %) temperature: 328.044

time: 103 (10 %) temperature: 284.342

time: 104 (10 %) temperature: 284.342

time: 105 (10 %) temperature: 284.342

time: 106 (11 %) temperature: 284.342

time: 107 (11 %) temperature: 284.342

time: 108 (11 %) temperature: 284.342

time: 109 (11 %) temperature: 305.634

time: 110 (11 %) temperature: 305.634

time: 111 (11 %) temperature: 305.634

time: 112 (11 %) temperature: 305.634

time: 113 (11 %) temperature: 305.634

time: 114 (11 %) temperature: 305.634

time: 115 (11 %) temperature: 305.634

time: 116 (12 %) temperature: 305.634

time: 117 (12 %) temperature: 305.634

time: 118 (12 %) temperature: 305.634

time: 119 (12 %) temperature: 305.634

time: 120 (12 %) temperature: 292.723

time: 121 (12 %) temperature: 292.723

time: 122 (12 %) temperature: 292.723

time: 123 (12 %) temperature: 400.635

time: 124 (12 %) temperature: 400.635

time: 125 (12 %) temperature: 400.635

time: 126 (13 %) temperature: 400.635

time: 127 (13 %) temperature: 400.635

time: 128 (13 %) temperature: 400.635

time: 129 (13 %) temperature: 400.635

time: 130 (13 %) temperature: 124.181

time: 131 (13 %) temperature: 124.181

time: 132 (13 %) temperature: 124.181

time: 133 (13 %) temperature: 124.181

time: 134 (13 %) temperature: 242.811

time: 135 (13 %) temperature: 242.811

time: 136 (14 %) temperature: 242.811

time: 137 (14 %) temperature: 242.811

time: 138 (14 %) temperature: 242.811

time: 139 (14 %) temperature: 242.811

time: 140 (14 %) temperature: 242.811

time: 141 (14 %) temperature: 242.811

time: 142 (14 %) temperature: 242.811

time: 143 (14 %) temperature: 256.793

time: 144 (14 %) temperature: 256.793

time: 145 (14 %) temperature: 256.793

time: 146 (15 %) temperature: 256.793

time: 147 (15 %) temperature: 256.793

time: 148 (15 %) temperature: 256.793

time: 149 (15 %) temperature: 256.793

time: 150 (15 %) temperature: 326.59

time: 151 (15 %) temperature: 326.59

time: 152 (15 %) temperature: 326.59

time: 153 (15 %) temperature: 326.59

time: 154 (15 %) temperature: 326.59

time: 155 (15 %) temperature: 326.59

time: 156 (16 %) temperature: 326.59

time: 157 (16 %) temperature: 326.59

time: 158 (16 %) temperature: 326.59

time: 159 (16 %) temperature: 227.157

time: 160 (16 %) temperature: 227.157

time: 161 (16 %) temperature: 227.157

time: 162 (16 %) temperature: 227.157

time: 163 (16 %) temperature: 227.157

time: 164 (16 %) temperature: 345.962

time: 165 (16 %) temperature: 345.962

time: 166 (17 %) temperature: 345.962

time: 167 (17 %) temperature: 345.962

time: 168 (17 %) temperature: 191.114

time: 169 (17 %) temperature: 191.114

time: 170 (17 %) temperature: 191.114

time: 171 (17 %) temperature: 191.114

time: 172 (17 %) temperature: 191.114

time: 173 (17 %) temperature: 191.114

time: 174 (17 %) temperature: 153.934

time: 175 (17 %) temperature: 153.934

time: 176 (18 %) temperature: 236.087

time: 177 (18 %) temperature: 236.087

time: 178 (18 %) temperature: 236.087

time: 179 (18 %) temperature: 236.087

time: 180 (18 %) temperature: 236.087

time: 181 (18 %) temperature: 305.971

time: 182 (18 %) temperature: 305.971

time: 183 (18 %) temperature: 305.971

time: 184 (18 %) temperature: 305.971

time: 185 (18 %) temperature: 305.971

time: 186 (19 %) temperature: 305.971

time: 187 (19 %) temperature: 305.971

time: 188 (19 %) temperature: 305.971

time: 189 (19 %) temperature: 305.971

time: 190 (19 %) temperature: 305.971

time: 191 (19 %) temperature: 305.971

time: 192 (19 %) temperature: 305.971

time: 193 (19 %) temperature: 236.377

time: 194 (19 %) temperature: 236.377

time: 195 (19 %) temperature: 421.325

time: 196 (20 %) temperature: 421.325

time: 197 (20 %) temperature: 421.325

time: 198 (20 %) temperature: 421.325

time: 199 (20 %) temperature: 421.325

time: 200 (20 %) temperature: 421.325

time: 201 (20 %) temperature: 421.325

time: 202 (20 %) temperature: 421.325

time: 203 (20 %) temperature: 421.325

time: 204 (20 %) temperature: 209.715

time: 205 (20 %) temperature: 209.715

time: 206 (21 %) temperature: 209.715

time: 207 (21 %) temperature: 209.715

time: 208 (21 %) temperature: 209.715

time: 209 (21 %) temperature: 209.715

time: 210 (21 %) temperature: 209.715

time: 211 (21 %) temperature: 209.715

time: 212 (21 %) temperature: 209.715

time: 213 (21 %) temperature: 209.715

time: 214 (21 %) temperature: 265.316

time: 215 (22 %) temperature: 265.316

time: 216 (22 %) temperature: 265.316

time: 217 (22 %) temperature: 265.316

time: 218 (22 %) temperature: 265.316

time: 219 (22 %) temperature: 297.285

time: 220 (22 %) temperature: 297.285

time: 221 (22 %) temperature: 297.285

time: 222 (22 %) temperature: 297.285

time: 223 (22 %) temperature: 297.285

time: 224 (22 %) temperature: 297.285

time: 225 (23 %) temperature: 297.285

time: 226 (23 %) temperature: 297.285

time: 227 (23 %) temperature: 297.285

time: 228 (23 %) temperature: 311.415

time: 229 (23 %) temperature: 311.415

time: 230 (23 %) temperature: 311.415

time: 231 (23 %) temperature: 311.415

time: 232 (23 %) temperature: 311.972

time: 233 (23 %) temperature: 311.972

time: 234 (23 %) temperature: 311.972

time: 235 (24 %) temperature: 311.972

time: 236 (24 %) temperature: 311.972

time: 237 (24 %) temperature: 311.972

time: 238 (24 %) temperature: 311.972

time: 239 (24 %) temperature: 311.972

time: 240 (24 %) temperature: 177.391

time: 241 (24 %) temperature: 177.391

time: 242 (24 %) temperature: 177.391

time: 243 (24 %) temperature: 177.391

time: 244 (24 %) temperature: 177.391

time: 245 (25 %) temperature: 177.391

time: 246 (25 %) temperature: 305.342

time: 247 (25 %) temperature: 305.342

time: 248 (25 %) temperature: 305.342

time: 249 (25 %) temperature: 305.342

time: 250 (25 %) temperature: 305.342

time: 251 (25 %) temperature: 305.342

time: 252 (25 %) temperature: 294.968

time: 253 (25 %) temperature: 294.968

time: 254 (25 %) temperature: 294.968

time: 255 (26 %) temperature: 294.968

time: 256 (26 %) temperature: 294.968

time: 257 (26 %) temperature: 294.968

time: 258 (26 %) temperature: 294.968

time: 259 (26 %) temperature: 294.968

time: 260 (26 %) temperature: 294.968

time: 261 (26 %) temperature: 294.968

time: 262 (26 %) temperature: 294.968

time: 263 (26 %) temperature: 294.968

time: 264 (26 %) temperature: 294.968

time: 265 (27 %) temperature: 512.852

time: 266 (27 %) temperature: 512.852

time: 267 (27 %) temperature: 512.852

time: 268 (27 %) temperature: 512.852

time: 269 (27 %) temperature: 512.852

time: 270 (27 %) temperature: 512.852

time: 271 (27 %) temperature: 512.852

time: 272 (27 %) temperature: 512.852

time: 273 (27 %) temperature: 512.852

time: 274 (27 %) temperature: 512.852

time: 275 (28 %) temperature: 512.852

time: 276 (28 %) temperature: 512.852

time: 277 (28 %) temperature: 512.852

time: 278 (28 %) temperature: 247.468

time: 279 (28 %) temperature: 247.468

time: 280 (28 %) temperature: 247.468

time: 281 (28 %) temperature: 247.468

time: 282 (28 %) temperature: 247.468

time: 283 (28 %) temperature: 243.458

time: 284 (28 %) temperature: 243.458

time: 285 (29 %) temperature: 243.458

time: 286 (29 %) temperature: 243.458

time: 287 (29 %) temperature: 243.458

time: 288 (29 %) temperature: 243.458

time: 289 (29 %) temperature: 243.458

time: 290 (29 %) temperature: 243.458

time: 291 (29 %) temperature: 243.458

time: 292 (29 %) temperature: 243.458

time: 293 (29 %) temperature: 243.458

time: 294 (29 %) temperature: 275.947

time: 295 (30 %) temperature: 275.947

time: 296 (30 %) temperature: 275.947

time: 297 (30 %) temperature: 275.947

time: 298 (30 %) temperature: 275.947

time: 299 (30 %) temperature: 275.947

time: 300 (30 %) temperature: 275.947

time: 301 (30 %) temperature: 275.947

time: 302 (30 %) temperature: 275.947

time: 303 (30 %) temperature: 116.192

time: 304 (30 %) temperature: 116.192

time: 305 (31 %) temperature: 116.192

time: 306 (31 %) temperature: 116.192

time: 307 (31 %) temperature: 116.192

time: 308 (31 %) temperature: 116.192

time: 309 (31 %) temperature: 116.192

time: 310 (31 %) temperature: 116.192

time: 311 (31 %) temperature: 186.18

time: 312 (31 %) temperature: 186.18

time: 313 (31 %) temperature: 186.18

time: 314 (31 %) temperature: 186.18

time: 315 (32 %) temperature: 186.18

time: 316 (32 %) temperature: 186.18

time: 317 (32 %) temperature: 186.18

time: 318 (32 %) temperature: 313.993

time: 319 (32 %) temperature: 313.993

time: 320 (32 %) temperature: 313.993

time: 321 (32 %) temperature: 313.993

time: 322 (32 %) temperature: 238.828

time: 323 (32 %) temperature: 238.828

time: 324 (32 %) temperature: 238.828

time: 325 (33 %) temperature: 238.828

time: 326 (33 %) temperature: 238.828

time: 327 (33 %) temperature: 238.828

time: 328 (33 %) temperature: 238.828

time: 329 (33 %) temperature: 173.02

time: 330 (33 %) temperature: 173.02

time: 331 (33 %) temperature: 173.02

time: 332 (33 %) temperature: 187.145

time: 333 (33 %) temperature: 187.145

time: 334 (33 %) temperature: 187.145

time: 335 (34 %) temperature: 187.145

time: 336 (34 %) temperature: 187.145

time: 337 (34 %) temperature: 241.897

time: 338 (34 %) temperature: 241.897

time: 339 (34 %) temperature: 241.897

time: 340 (34 %) temperature: 366.453

time: 341 (34 %) temperature: 366.453

time: 342 (34 %) temperature: 285.804

time: 343 (34 %) temperature: 285.804

time: 344 (34 %) temperature: 285.804

time: 345 (35 %) temperature: 285.804

time: 346 (35 %) temperature: 285.804

time: 347 (35 %) temperature: 331.463

time: 348 (35 %) temperature: 331.463

time: 349 (35 %) temperature: 331.463

time: 350 (35 %) temperature: 331.463

time: 351 (35 %) temperature: 331.463

time: 352 (35 %) temperature: 331.463

time: 353 (35 %) temperature: 331.463

time: 354 (35 %) temperature: 281.217

time: 355 (36 %) temperature: 281.217

time: 356 (36 %) temperature: 281.217

time: 357 (36 %) temperature: 281.217

time: 358 (36 %) temperature: 281.217

time: 359 (36 %) temperature: 281.217

time: 360 (36 %) temperature: 281.217

time: 361 (36 %) temperature: 281.217

time: 362 (36 %) temperature: 223.014

time: 363 (36 %) temperature: 223.014

time: 364 (36 %) temperature: 223.014

time: 365 (37 %) temperature: 223.014

time: 366 (37 %) temperature: 223.014

time: 367 (37 %) temperature: 223.014

time: 368 (37 %) temperature: 223.014

time: 369 (37 %) temperature: 266.868

time: 370 (37 %) temperature: 266.868

time: 371 (37 %) temperature: 266.868

time: 372 (37 %) temperature: 266.868

time: 373 (37 %) temperature: 266.868

time: 374 (37 %) temperature: 266.868

time: 375 (38 %) temperature: 266.868

time: 376 (38 %) temperature: 266.868

time: 377 (38 %) temperature: 266.868

time: 378 (38 %) temperature: 298.751

time: 379 (38 %) temperature: 298.751

time: 380 (38 %) temperature: 298.751

time: 381 (38 %) temperature: 298.751

time: 382 (38 %) temperature: 449.795

time: 383 (38 %) temperature: 449.795

time: 384 (38 %) temperature: 449.795

time: 385 (39 %) temperature: 449.795

time: 386 (39 %) temperature: 449.795

time: 387 (39 %) temperature: 449.795

time: 388 (39 %) temperature: 449.795

time: 389 (39 %) temperature: 240.287

time: 390 (39 %) temperature: 240.287

time: 391 (39 %) temperature: 240.287

time: 392 (39 %) temperature: 240.287

time: 393 (39 %) temperature: 240.287

time: 394 (39 %) temperature: 240.287

time: 395 (40 %) temperature: 193.533

time: 396 (40 %) temperature: 193.533

time: 397 (40 %) temperature: 197.345

time: 398 (40 %) temperature: 197.345

time: 399 (40 %) temperature: 197.345

time: 400 (40 %) temperature: 197.345

time: 401 (40 %) temperature: 197.345

time: 402 (40 %) temperature: 197.345

time: 403 (40 %) temperature: 197.345

time: 404 (40 %) temperature: 197.345

time: 405 (41 %) temperature: 197.345

time: 406 (41 %) temperature: 197.345

time: 407 (41 %) temperature: 290.047

time: 408 (41 %) temperature: 290.047

time: 409 (41 %) temperature: 290.047

time: 410 (41 %) temperature: 290.047

time: 411 (41 %) temperature: 290.047

time: 412 (41 %) temperature: 290.047

time: 413 (41 %) temperature: 290.047

time: 414 (41 %) temperature: 290.047

time: 415 (42 %) temperature: 290.047

time: 416 (42 %) temperature: 297.461

time: 417 (42 %) temperature: 297.461

time: 418 (42 %) temperature: 297.461

time: 419 (42 %) temperature: 297.461

time: 420 (42 %) temperature: 297.461

time: 421 (42 %) temperature: 297.461

time: 422 (42 %) temperature: 297.461

time: 423 (42 %) temperature: 297.461

time: 424 (42 %) temperature: 297.461

time: 425 (43 %) temperature: 297.461

time: 426 (43 %) temperature: 297.461

time: 427 (43 %) temperature: 297.461

time: 428 (43 %) temperature: 213.299

time: 429 (43 %) temperature: 213.299

time: 430 (43 %) temperature: 332.495

time: 431 (43 %) temperature: 332.495

time: 432 (43 %) temperature: 332.495

time: 433 (43 %) temperature: 332.495

time: 434 (43 %) temperature: 332.495

time: 435 (44 %) temperature: 332.495

time: 436 (44 %) temperature: 332.495

time: 437 (44 %) temperature: 332.495

time: 438 (44 %) temperature: 332.495

time: 439 (44 %) temperature: 332.495

time: 440 (44 %) temperature: 289.066

time: 441 (44 %) temperature: 289.066

time: 442 (44 %) temperature: 289.066

time: 443 (44 %) temperature: 289.066

time: 444 (44 %) temperature: 289.066

time: 445 (45 %) temperature: 291.484

time: 446 (45 %) temperature: 291.484

time: 447 (45 %) temperature: 291.484

time: 448 (45 %) temperature: 291.484

time: 449 (45 %) temperature: 291.484

time: 450 (45 %) temperature: 291.484

time: 451 (45 %) temperature: 291.484

time: 452 (45 %) temperature: 291.484

time: 453 (45 %) temperature: 341.408

time: 454 (45 %) temperature: 341.408

time: 455 (46 %) temperature: 341.408

time: 456 (46 %) temperature: 341.408

time: 457 (46 %) temperature: 341.408

time: 458 (46 %) temperature: 291.83

time: 459 (46 %) temperature: 291.83

time: 460 (46 %) temperature: 291.83

time: 461 (46 %) temperature: 291.83

time: 462 (46 %) temperature: 291.83

time: 463 (46 %) temperature: 291.83

time: 464 (46 %) temperature: 291.83

time: 465 (47 %) temperature: 220.665

time: 466 (47 %) temperature: 220.665

time: 467 (47 %) temperature: 220.665

time: 468 (47 %) temperature: 264.746

time: 469 (47 %) temperature: 264.746

time: 470 (47 %) temperature: 264.746

time: 471 (47 %) temperature: 264.746

time: 472 (47 %) temperature: 264.746

time: 473 (47 %) temperature: 264.746

time: 474 (47 %) temperature: 264.746

time: 475 (48 %) temperature: 264.746

time: 476 (48 %) temperature: 264.746

time: 477 (48 %) temperature: 264.746

time: 478 (48 %) temperature: 191.125

time: 479 (48 %) temperature: 191.125

time: 480 (48 %) temperature: 191.125

time: 481 (48 %) temperature: 480.071

time: 482 (48 %) temperature: 480.071

time: 483 (48 %) temperature: 480.071

time: 484 (48 %) temperature: 480.071

time: 485 (49 %) temperature: 480.071

time: 486 (49 %) temperature: 480.071

time: 487 (49 %) temperature: 220.213

time: 488 (49 %) temperature: 220.213

time: 489 (49 %) temperature: 220.213

time: 490 (49 %) temperature: 220.213

time: 491 (49 %) temperature: 220.213

time: 492 (49 %) temperature: 220.213

time: 493 (49 %) temperature: 220.213

time: 494 (49 %) temperature: 220.213

time: 495 (50 %) temperature: 237.196

time: 496 (50 %) temperature: 237.196

time: 497 (50 %) temperature: 237.196

time: 498 (50 %) temperature: 237.196

time: 499 (50 %) temperature: 237.196

time: 500 (50 %) temperature: 237.196

time: 501 (50 %) temperature: 237.196

time: 502 (50 %) temperature: 237.196

time: 503 (50 %) temperature: 237.196

time: 504 (50 %) temperature: 237.196

time: 505 (51 %) temperature: 237.196

time: 506 (51 %) temperature: 237.196

time: 507 (51 %) temperature: 247.655

time: 508 (51 %) temperature: 247.655

time: 509 (51 %) temperature: 247.655

time: 510 (51 %) temperature: 247.655

time: 511 (51 %) temperature: 153.028

time: 512 (51 %) temperature: 153.028

time: 513 (51 %) temperature: 312.576

time: 514 (51 %) temperature: 312.576

time: 515 (52 %) temperature: 312.576

time: 516 (52 %) temperature: 312.576

time: 517 (52 %) temperature: 312.576

time: 518 (52 %) temperature: 312.576

time: 519 (52 %) temperature: 234.66

time: 520 (52 %) temperature: 234.66

time: 521 (52 %) temperature: 234.66

time: 522 (52 %) temperature: 234.66

time: 523 (52 %) temperature: 234.66

time: 524 (52 %) temperature: 234.66

time: 525 (53 %) temperature: 496.439

time: 526 (53 %) temperature: 496.439

time: 527 (53 %) temperature: 496.439

time: 528 (53 %) temperature: 496.439

time: 529 (53 %) temperature: 332.623

time: 530 (53 %) temperature: 332.623

time: 531 (53 %) temperature: 332.623

time: 532 (53 %) temperature: 332.623

time: 533 (53 %) temperature: 332.623

time: 534 (53 %) temperature: 332.623

time: 535 (54 %) temperature: 285.844

time: 536 (54 %) temperature: 285.844

time: 537 (54 %) temperature: 285.844

time: 538 (54 %) temperature: 285.844

time: 539 (54 %) temperature: 285.844

time: 540 (54 %) temperature: 285.844

time: 541 (54 %) temperature: 285.844

time: 542 (54 %) temperature: 285.844

time: 543 (54 %) temperature: 285.844

time: 544 (54 %) temperature: 319.285

time: 545 (55 %) temperature: 319.285

time: 546 (55 %) temperature: 319.285

time: 547 (55 %) temperature: 319.285

time: 548 (55 %) temperature: 319.285

time: 549 (55 %) temperature: 394.746

time: 550 (55 %) temperature: 394.746

time: 551 (55 %) temperature: 394.746

time: 552 (55 %) temperature: 394.746

time: 553 (55 %) temperature: 394.746

time: 554 (55 %) temperature: 394.746

time: 555 (56 %) temperature: 365.458

time: 556 (56 %) temperature: 365.458

time: 557 (56 %) temperature: 365.458

time: 558 (56 %) temperature: 365.458

time: 559 (56 %) temperature: 365.458

time: 560 (56 %) temperature: 365.458

time: 561 (56 %) temperature: 428.639

time: 562 (56 %) temperature: 428.639

time: 563 (56 %) temperature: 428.639

time: 564 (56 %) temperature: 428.639

time: 565 (57 %) temperature: 428.639

time: 566 (57 %) temperature: 428.639

time: 567 (57 %) temperature: 428.639

time: 568 (57 %) temperature: 260.321

time: 569 (57 %) temperature: 260.321

time: 570 (57 %) temperature: 260.321

time: 571 (57 %) temperature: 260.321

time: 572 (57 %) temperature: 260.321

time: 573 (57 %) temperature: 260.321

time: 574 (57 %) temperature: 260.321

time: 575 (58 %) temperature: 260.321

time: 576 (58 %) temperature: 260.321

time: 577 (58 %) temperature: 260.321

time: 578 (58 %) temperature: 260.321

time: 579 (58 %) temperature: 260.321

time: 580 (58 %) temperature: 260.321

time: 581 (58 %) temperature: 220.397

time: 582 (58 %) temperature: 220.397

time: 583 (58 %) temperature: 220.397

time: 584 (58 %) temperature: 220.397

time: 585 (59 %) temperature: 220.397

time: 586 (59 %) temperature: 236.987

time: 587 (59 %) temperature: 236.987

time: 588 (59 %) temperature: 236.987

time: 589 (59 %) temperature: 236.987

time: 590 (59 %) temperature: 236.987

time: 591 (59 %) temperature: 236.987

time: 592 (59 %) temperature: 236.987

time: 593 (59 %) temperature: 236.987

time: 594 (59 %) temperature: 192.971

time: 595 (60 %) temperature: 192.971

time: 596 (60 %) temperature: 192.971

time: 597 (60 %) temperature: 192.971

time: 598 (60 %) temperature: 192.971

time: 599 (60 %) temperature: 192.971

time: 600 (60 %) temperature: 192.971

time: 601 (60 %) temperature: 233.311

time: 602 (60 %) temperature: 233.311

time: 603 (60 %) temperature: 233.311

time: 604 (60 %) temperature: 233.311

time: 605 (61 %) temperature: 233.311

time: 606 (61 %) temperature: 233.311

time: 607 (61 %) temperature: 233.311

time: 608 (61 %) temperature: 233.311

time: 609 (61 %) temperature: 490.668

time: 610 (61 %) temperature: 490.668

time: 611 (61 %) temperature: 490.668

time: 612 (61 %) temperature: 490.668

time: 613 (61 %) temperature: 490.668

time: 614 (61 %) temperature: 272.917

time: 615 (62 %) temperature: 272.917

time: 616 (62 %) temperature: 272.917

time: 617 (62 %) temperature: 272.917

time: 618 (62 %) temperature: 272.917

time: 619 (62 %) temperature: 263.839

time: 620 (62 %) temperature: 263.839

time: 621 (62 %) temperature: 263.839

time: 622 (62 %) temperature: 263.839

time: 623 (62 %) temperature: 263.839

time: 624 (62 %) temperature: 263.839

time: 625 (63 %) temperature: 263.839

time: 626 (63 %) temperature: 263.839

time: 627 (63 %) temperature: 263.839

time: 628 (63 %) temperature: 263.839

time: 629 (63 %) temperature: 280.406

time: 630 (63 %) temperature: 280.406

time: 631 (63 %) temperature: 280.406

time: 632 (63 %) temperature: 280.406

time: 633 (63 %) temperature: 280.406

time: 634 (63 %) temperature: 280.406

time: 635 (64 %) temperature: 548.79

time: 636 (64 %) temperature: 548.79

time: 637 (64 %) temperature: 548.79

time: 638 (64 %) temperature: 548.79

time: 639 (64 %) temperature: 548.79

time: 640 (64 %) temperature: 548.79

time: 641 (64 %) temperature: 548.79

time: 642 (64 %) temperature: 548.79

time: 643 (64 %) temperature: 499.689

time: 644 (64 %) temperature: 499.689

time: 645 (65 %) temperature: 499.689

time: 646 (65 %) temperature: 499.689

time: 647 (65 %) temperature: 499.689

time: 648 (65 %) temperature: 499.689

time: 649 (65 %) temperature: 499.689

time: 650 (65 %) temperature: 499.689

time: 651 (65 %) temperature: 499.689

time: 652 (65 %) temperature: 499.689

time: 653 (65 %) temperature: 499.689

time: 654 (65 %) temperature: 591.721

time: 655 (66 %) temperature: 591.721

time: 656 (66 %) temperature: 591.721

time: 657 (66 %) temperature: 591.721

time: 658 (66 %) temperature: 591.721

time: 659 (66 %) temperature: 591.721

time: 660 (66 %) temperature: 213.634

time: 661 (66 %) temperature: 213.634

time: 662 (66 %) temperature: 213.634

time: 663 (66 %) temperature: 213.634

time: 664 (66 %) temperature: 213.634

time: 665 (67 %) temperature: 213.634

time: 666 (67 %) temperature: 213.634

time: 667 (67 %) temperature: 213.634

time: 668 (67 %) temperature: 213.634

time: 669 (67 %) temperature: 213.634

time: 670 (67 %) temperature: 213.634

time: 671 (67 %) temperature: 213.634

time: 672 (67 %) temperature: 278.074

time: 673 (67 %) temperature: 278.074

time: 674 (67 %) temperature: 278.074

time: 675 (68 %) temperature: 278.074

time: 676 (68 %) temperature: 278.074

time: 677 (68 %) temperature: 463.081

time: 678 (68 %) temperature: 463.081

time: 679 (68 %) temperature: 463.081

time: 680 (68 %) temperature: 463.081

time: 681 (68 %) temperature: 463.081

time: 682 (68 %) temperature: 463.081

time: 683 (68 %) temperature: 463.081

time: 684 (68 %) temperature: 463.081

time: 685 (69 %) temperature: 463.081

time: 686 (69 %) temperature: 208.714

time: 687 (69 %) temperature: 208.714

time: 688 (69 %) temperature: 208.714

time: 689 (69 %) temperature: 208.714

time: 690 (69 %) temperature: 208.714

time: 691 (69 %) temperature: 208.714

time: 692 (69 %) temperature: 208.714

time: 693 (69 %) temperature: 208.714

time: 694 (69 %) temperature: 208.714

time: 695 (70 %) temperature: 208.714

time: 696 (70 %) temperature: 322.775

time: 697 (70 %) temperature: 322.775

time: 698 (70 %) temperature: 322.775

time: 699 (70 %) temperature: 322.775

time: 700 (70 %) temperature: 322.775

time: 701 (70 %) temperature: 322.775

time: 702 (70 %) temperature: 322.775

time: 703 (70 %) temperature: 322.775

time: 704 (70 %) temperature: 322.775

time: 705 (71 %) temperature: 322.775

time: 706 (71 %) temperature: 322.775

time: 707 (71 %) temperature: 322.775

time: 708 (71 %) temperature: 502.55

time: 709 (71 %) temperature: 502.55

time: 710 (71 %) temperature: 502.55

time: 711 (71 %) temperature: 502.55

time: 712 (71 %) temperature: 502.55

time: 713 (71 %) temperature: 502.55

time: 714 (71 %) temperature: 502.55

time: 715 (72 %) temperature: 502.55

time: 716 (72 %) temperature: 502.55

time: 717 (72 %) temperature: 155.735

time: 718 (72 %) temperature: 155.735

time: 719 (72 %) temperature: 155.735

time: 720 (72 %) temperature: 155.735

time: 721 (72 %) temperature: 155.735

time: 722 (72 %) temperature: 155.735

time: 723 (72 %) temperature: 155.735

time: 724 (72 %) temperature: 155.735

time: 725 (73 %) temperature: 155.735

time: 726 (73 %) temperature: 200.46

time: 727 (73 %) temperature: 200.46

time: 728 (73 %) temperature: 200.46

time: 729 (73 %) temperature: 200.46

time: 730 (73 %) temperature: 200.46

time: 731 (73 %) temperature: 200.46

time: 732 (73 %) temperature: 389.303

time: 733 (73 %) temperature: 389.303

time: 734 (73 %) temperature: 389.303

time: 735 (74 %) temperature: 389.303

time: 736 (74 %) temperature: 389.303

time: 737 (74 %) temperature: 389.303

time: 738 (74 %) temperature: 389.303

time: 739 (74 %) temperature: 372.804

time: 740 (74 %) temperature: 372.804

time: 741 (74 %) temperature: 372.804

time: 742 (74 %) temperature: 372.804

time: 743 (74 %) temperature: 373.166

time: 744 (74 %) temperature: 373.166

time: 745 (75 %) temperature: 373.166

time: 746 (75 %) temperature: 373.166

time: 747 (75 %) temperature: 373.166

time: 748 (75 %) temperature: 373.166

time: 749 (75 %) temperature: 373.166

time: 750 (75 %) temperature: 373.166

time: 751 (75 %) temperature: 373.166

time: 752 (75 %) temperature: 373.166

time: 753 (75 %) temperature: 264.836

time: 754 (75 %) temperature: 264.836

time: 755 (76 %) temperature: 264.836

time: 756 (76 %) temperature: 264.836

time: 757 (76 %) temperature: 201.55

time: 758 (76 %) temperature: 201.55

time: 759 (76 %) temperature: 201.55

time: 760 (76 %) temperature: 201.55

time: 761 (76 %) temperature: 201.55

time: 762 (76 %) temperature: 201.55

time: 763 (76 %) temperature: 201.55

time: 764 (76 %) temperature: 201.55

time: 765 (77 %) temperature: 201.55

time: 766 (77 %) temperature: 291.829

time: 767 (77 %) temperature: 291.829

time: 768 (77 %) temperature: 291.829

time: 769 (77 %) temperature: 291.829

time: 770 (77 %) temperature: 291.829

time: 771 (77 %) temperature: 291.829

time: 772 (77 %) temperature: 291.829

time: 773 (77 %) temperature: 291.829

time: 774 (77 %) temperature: 291.829

time: 775 (78 %) temperature: 291.829

time: 776 (78 %) temperature: 291.829

time: 777 (78 %) temperature: 291.829

time: 778 (78 %) temperature: 291.829

time: 779 (78 %) temperature: 291.829

time: 780 (78 %) temperature: 291.829

time: 781 (78 %) temperature: 291.829

time: 782 (78 %) temperature: 252.584

time: 783 (78 %) temperature: 252.584

time: 784 (78 %) temperature: 252.584

time: 785 (79 %) temperature: 252.584

time: 786 (79 %) temperature: 332.602

time: 787 (79 %) temperature: 332.602

time: 788 (79 %) temperature: 332.602

time: 789 (79 %) temperature: 332.602

time: 790 (79 %) temperature: 332.602

time: 791 (79 %) temperature: 332.602

time: 792 (79 %) temperature: 332.602

time: 793 (79 %) temperature: 238.677

time: 794 (79 %) temperature: 238.677

time: 795 (80 %) temperature: 238.677

time: 796 (80 %) temperature: 238.677

time: 797 (80 %) temperature: 238.677

time: 798 (80 %) temperature: 238.677

time: 799 (80 %) temperature: 346.016

time: 800 (80 %) temperature: 346.016

time: 801 (80 %) temperature: 346.016

time: 802 (80 %) temperature: 346.016

time: 803 (80 %) temperature: 346.016

time: 804 (80 %) temperature: 348.159

time: 805 (81 %) temperature: 348.159

time: 806 (81 %) temperature: 348.159

time: 807 (81 %) temperature: 348.159

time: 808 (81 %) temperature: 348.159

time: 809 (81 %) temperature: 348.159

time: 810 (81 %) temperature: 348.159

time: 811 (81 %) temperature: 348.159

time: 812 (81 %) temperature: 334.627

time: 813 (81 %) temperature: 334.627

time: 814 (81 %) temperature: 334.627

time: 815 (82 %) temperature: 334.627

time: 816 (82 %) temperature: 334.627

time: 817 (82 %) temperature: 334.627

time: 818 (82 %) temperature: 334.627

time: 819 (82 %) temperature: 432.245

time: 820 (82 %) temperature: 432.245

time: 821 (82 %) temperature: 432.245

time: 822 (82 %) temperature: 432.245

time: 823 (82 %) temperature: 432.245

time: 824 (82 %) temperature: 432.245

time: 825 (83 %) temperature: 432.245

time: 826 (83 %) temperature: 432.245

time: 827 (83 %) temperature: 432.245

time: 828 (83 %) temperature: 432.245

time: 829 (83 %) temperature: 432.245

time: 830 (83 %) temperature: 302.394

time: 831 (83 %) temperature: 302.394

time: 832 (83 %) temperature: 302.394

time: 833 (83 %) temperature: 302.394

time: 834 (83 %) temperature: 302.394

time: 835 (84 %) temperature: 302.394

time: 836 (84 %) temperature: 302.394

time: 837 (84 %) temperature: 302.394

time: 838 (84 %) temperature: 282.369

time: 839 (84 %) temperature: 282.369

time: 840 (84 %) temperature: 282.369

time: 841 (84 %) temperature: 282.369

time: 842 (84 %) temperature: 282.369

time: 843 (84 %) temperature: 282.369

time: 844 (84 %) temperature: 282.369

time: 845 (85 %) temperature: 220.18

time: 846 (85 %) temperature: 220.18

time: 847 (85 %) temperature: 220.18

time: 848 (85 %) temperature: 220.18

time: 849 (85 %) temperature: 220.18

time: 850 (85 %) temperature: 220.18

time: 851 (85 %) temperature: 220.18

time: 852 (85 %) temperature: 220.18

time: 853 (85 %) temperature: 220.18

time: 854 (85 %) temperature: 220.18

time: 855 (86 %) temperature: 220.18

time: 856 (86 %) temperature: 315.281

time: 857 (86 %) temperature: 315.281

time: 858 (86 %) temperature: 315.281

time: 859 (86 %) temperature: 315.281

time: 860 (86 %) temperature: 315.281

time: 861 (86 %) temperature: 315.281

time: 862 (86 %) temperature: 146.543

time: 863 (86 %) temperature: 146.543

time: 864 (86 %) temperature: 146.543

time: 865 (87 %) temperature: 146.543

time: 866 (87 %) temperature: 146.543

time: 867 (87 %) temperature: 146.543

time: 868 (87 %) temperature: 146.543

time: 869 (87 %) temperature: 146.543

time: 870 (87 %) temperature: 146.543

time: 871 (87 %) temperature: 146.543

time: 872 (87 %) temperature: 232.132

time: 873 (87 %) temperature: 232.132

time: 874 (87 %) temperature: 232.132

time: 875 (88 %) temperature: 232.132

time: 876 (88 %) temperature: 245.989

time: 877 (88 %) temperature: 245.989

time: 878 (88 %) temperature: 245.989

time: 879 (88 %) temperature: 245.989

time: 880 (88 %) temperature: 259.289

time: 881 (88 %) temperature: 259.289

time: 882 (88 %) temperature: 259.289

time: 883 (88 %) temperature: 259.289

time: 884 (88 %) temperature: 259.289

time: 885 (89 %) temperature: 259.289

time: 886 (89 %) temperature: 259.289

time: 887 (89 %) temperature: 211.632

time: 888 (89 %) temperature: 211.632

time: 889 (89 %) temperature: 211.632

time: 890 (89 %) temperature: 211.632

time: 891 (89 %) temperature: 211.632

time: 892 (89 %) temperature: 211.632

time: 893 (89 %) temperature: 366.11

time: 894 (89 %) temperature: 366.11

time: 895 (90 %) temperature: 366.11

time: 896 (90 %) temperature: 366.11

time: 897 (90 %) temperature: 366.11

time: 898 (90 %) temperature: 366.11

time: 899 (90 %) temperature: 366.11

time: 900 (90 %) temperature: 366.11

time: 901 (90 %) temperature: 396.258

time: 902 (90 %) temperature: 396.258

time: 903 (90 %) temperature: 396.258

time: 904 (90 %) temperature: 396.258

time: 905 (91 %) temperature: 396.258

time: 906 (91 %) temperature: 396.258

time: 907 (91 %) temperature: 396.258

time: 908 (91 %) temperature: 368.74

time: 909 (91 %) temperature: 368.74

time: 910 (91 %) temperature: 368.74

time: 911 (91 %) temperature: 368.74

time: 912 (91 %) temperature: 368.74

time: 913 (91 %) temperature: 368.74

time: 914 (91 %) temperature: 368.74

time: 915 (92 %) temperature: 368.74

time: 916 (92 %) temperature: 315.358

time: 917 (92 %) temperature: 315.358

time: 918 (92 %) temperature: 315.358

time: 919 (92 %) temperature: 315.358

time: 920 (92 %) temperature: 315.358

time: 921 (92 %) temperature: 315.358

time: 922 (92 %) temperature: 324.795

time: 923 (92 %) temperature: 324.795

time: 924 (92 %) temperature: 324.795

time: 925 (93 %) temperature: 695.121

time: 926 (93 %) temperature: 695.121

time: 927 (93 %) temperature: 695.121

time: 928 (93 %) temperature: 695.121

time: 929 (93 %) temperature: 695.121

time: 930 (93 %) temperature: 695.121

time: 931 (93 %) temperature: 695.121

time: 932 (93 %) temperature: 695.121

time: 933 (93 %) temperature: 695.121

time: 934 (93 %) temperature: 695.121

time: 935 (94 %) temperature: 695.121

time: 936 (94 %) temperature: 695.121

time: 937 (94 %) temperature: 695.121

time: 938 (94 %) temperature: 695.121

time: 939 (94 %) temperature: 215.212

time: 940 (94 %) temperature: 215.212

time: 941 (94 %) temperature: 215.212

time: 942 (94 %) temperature: 215.212

time: 943 (94 %) temperature: 290.756

time: 944 (94 %) temperature: 290.756

time: 945 (95 %) temperature: 290.756

time: 946 (95 %) temperature: 290.756

time: 947 (95 %) temperature: 350.874

time: 948 (95 %) temperature: 350.874

time: 949 (95 %) temperature: 265.367

time: 950 (95 %) temperature: 265.367

time: 951 (95 %) temperature: 265.367

time: 952 (95 %) temperature: 265.367

time: 953 (95 %) temperature: 265.367

time: 954 (95 %) temperature: 265.367

time: 955 (96 %) temperature: 265.367

time: 956 (96 %) temperature: 609.135

time: 957 (96 %) temperature: 609.135

time: 958 (96 %) temperature: 609.135

time: 959 (96 %) temperature: 609.135

time: 960 (96 %) temperature: 609.135

time: 961 (96 %) temperature: 609.135

time: 962 (96 %) temperature: 609.135

time: 963 (96 %) temperature: 609.135

time: 964 (96 %) temperature: 609.135

time: 965 (97 %) temperature: 609.135

time: 966 (97 %) temperature: 609.135

time: 967 (97 %) temperature: 208.865

time: 968 (97 %) temperature: 208.865

time: 969 (97 %) temperature: 208.865

time: 970 (97 %) temperature: 208.865

time: 971 (97 %) temperature: 208.865

time: 972 (97 %) temperature: 208.865

time: 973 (97 %) temperature: 299.849

time: 974 (97 %) temperature: 299.849

time: 975 (98 %) temperature: 299.849

time: 976 (98 %) temperature: 280.598

time: 977 (98 %) temperature: 280.598

time: 978 (98 %) temperature: 265.274

time: 979 (98 %) temperature: 265.274

time: 980 (98 %) temperature: 265.274

time: 981 (98 %) temperature: 265.274

time: 982 (98 %) temperature: 265.274

time: 983 (98 %) temperature: 308.121

time: 984 (98 %) temperature: 308.121

time: 985 (99 %) temperature: 308.121

time: 986 (99 %) temperature: 308.121

time: 987 (99 %) temperature: 308.121

time: 988 (99 %) temperature: 308.121

time: 989 (99 %) temperature: 308.121

time: 990 (99 %) temperature: 167.93

time: 991 (99 %) temperature: 167.93

time: 992 (99 %) temperature: 167.93

time: 993 (99 %) temperature: 215.565

time: 994 (99 %) temperature: 215.565

time: 995 (1e+02 %) temperature: 215.565

time: 996 (1e+02 %) temperature: 215.565

time: 997 (1e+02 %) temperature: 215.565

time: 998 (1e+02 %) temperature: 215.565

time: 999 (1e+02 %) temperature: 215.565

vth: 186979

MFP:9.83362e-09 m

mean time between collisions: 5.80822e-14 s



