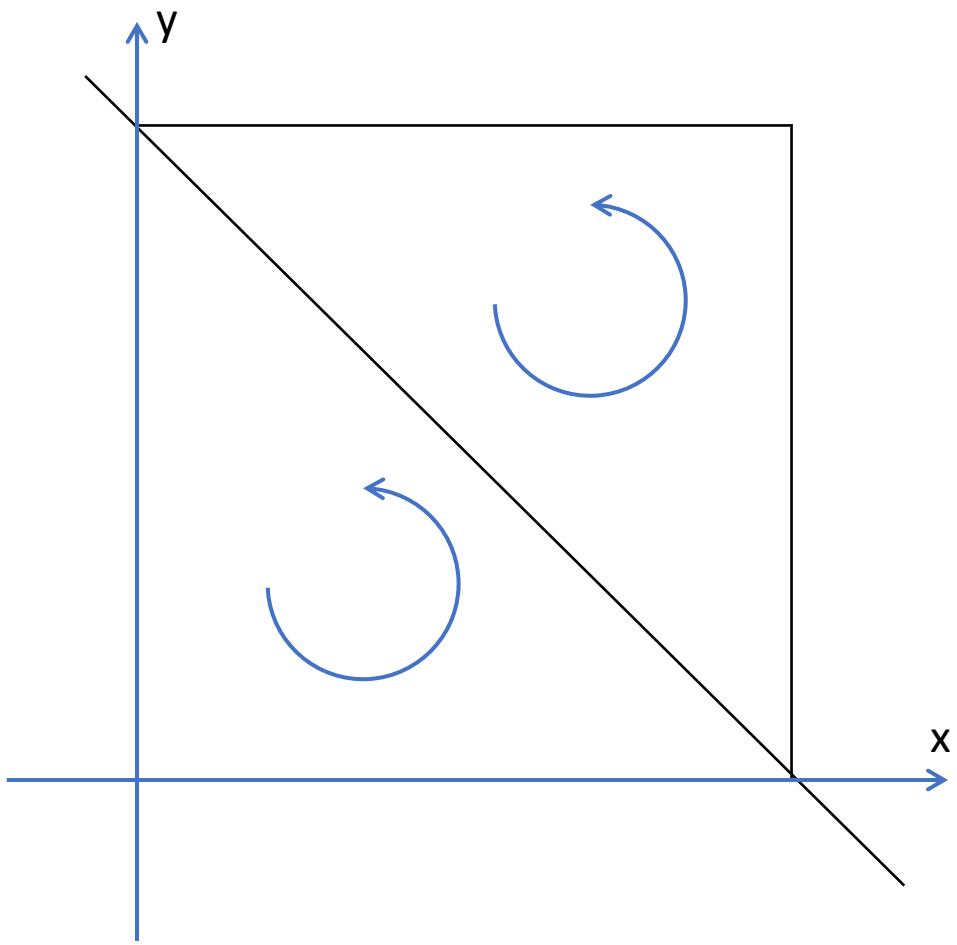
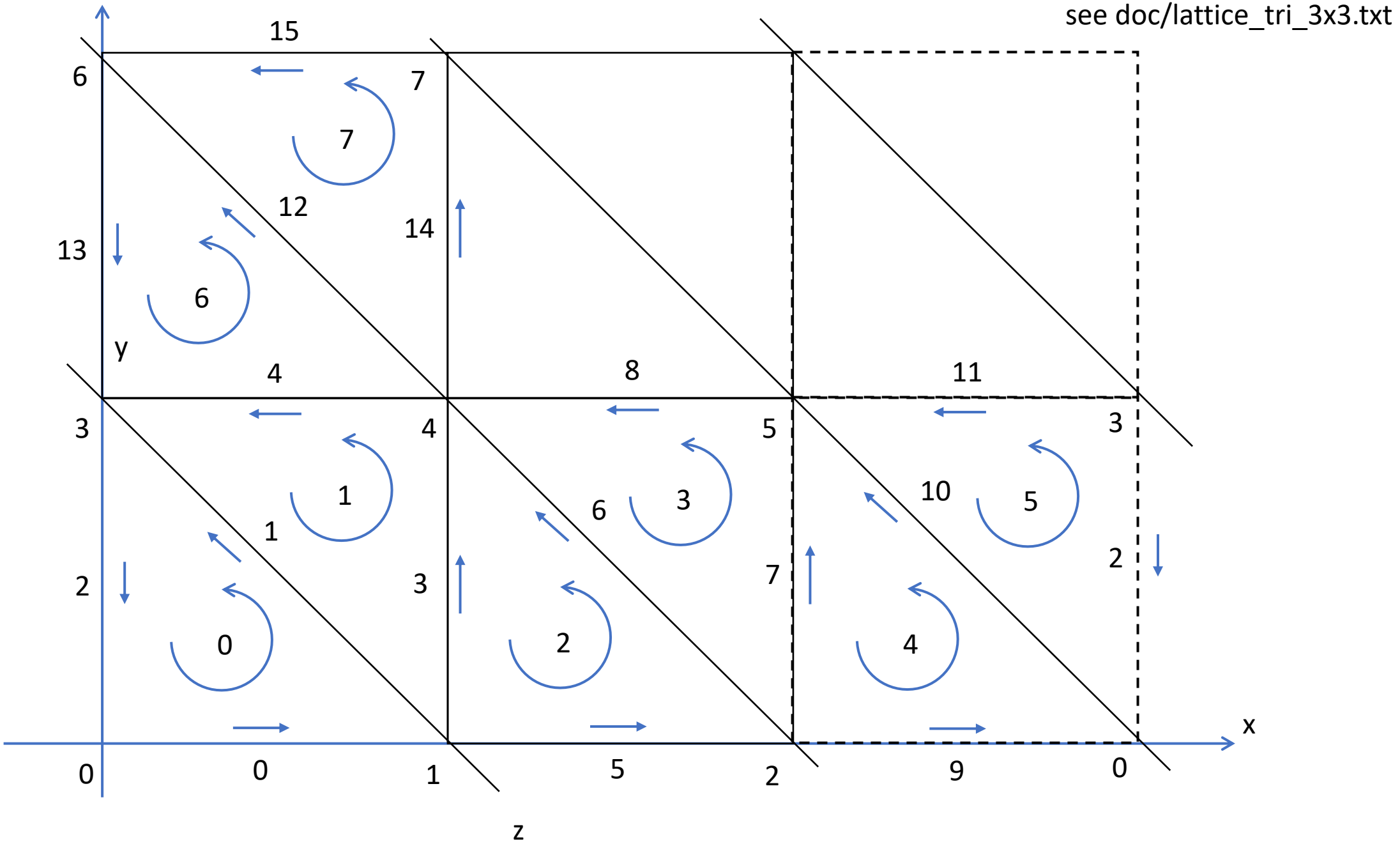
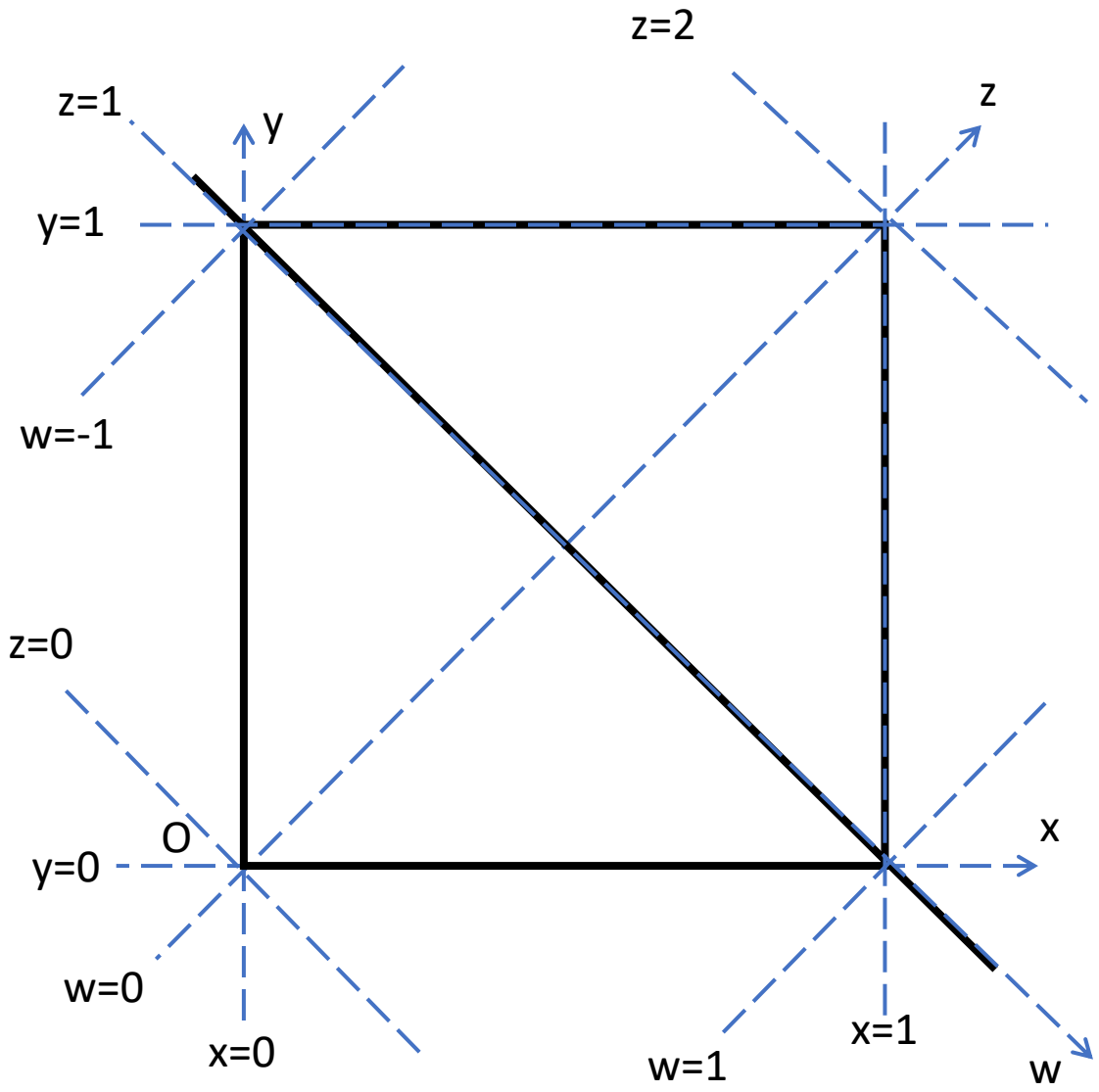
lattice.h ll.406,407




```
396   for (int s = 0; s < n_sites; s++) {
397     int x = s % Nx;
398     int y = s / Nx;
399
400     // add links in the "forward" direction (3 links per site)
401     // each link will end up with 6 neighbors
402     int xp1 = (x + 1) % Nx;
403     int yp1 = (y + 1) % Ny;
404
405     // add "right-handed" faces
406     AddFace(s, xp1 + y * Nx, x + yp1 * Nx);
407     AddFace(xp1 + y * Nx, xp1 + yp1 * Nx, x + yp1 * Nx);
408     int l1 = FindLink(s, xp1 + y * Nx);
409     int l2 = FindLink(s, x + yp1 * Nx);
410     int l3 = FindLink(xp1 + y * Nx, x + yp1 * Nx);
411     links[l1].wt = wt1;
412     links[l2].wt = wt2;
413     links[l3].wt = wt3;
414   }
415 }
416
```

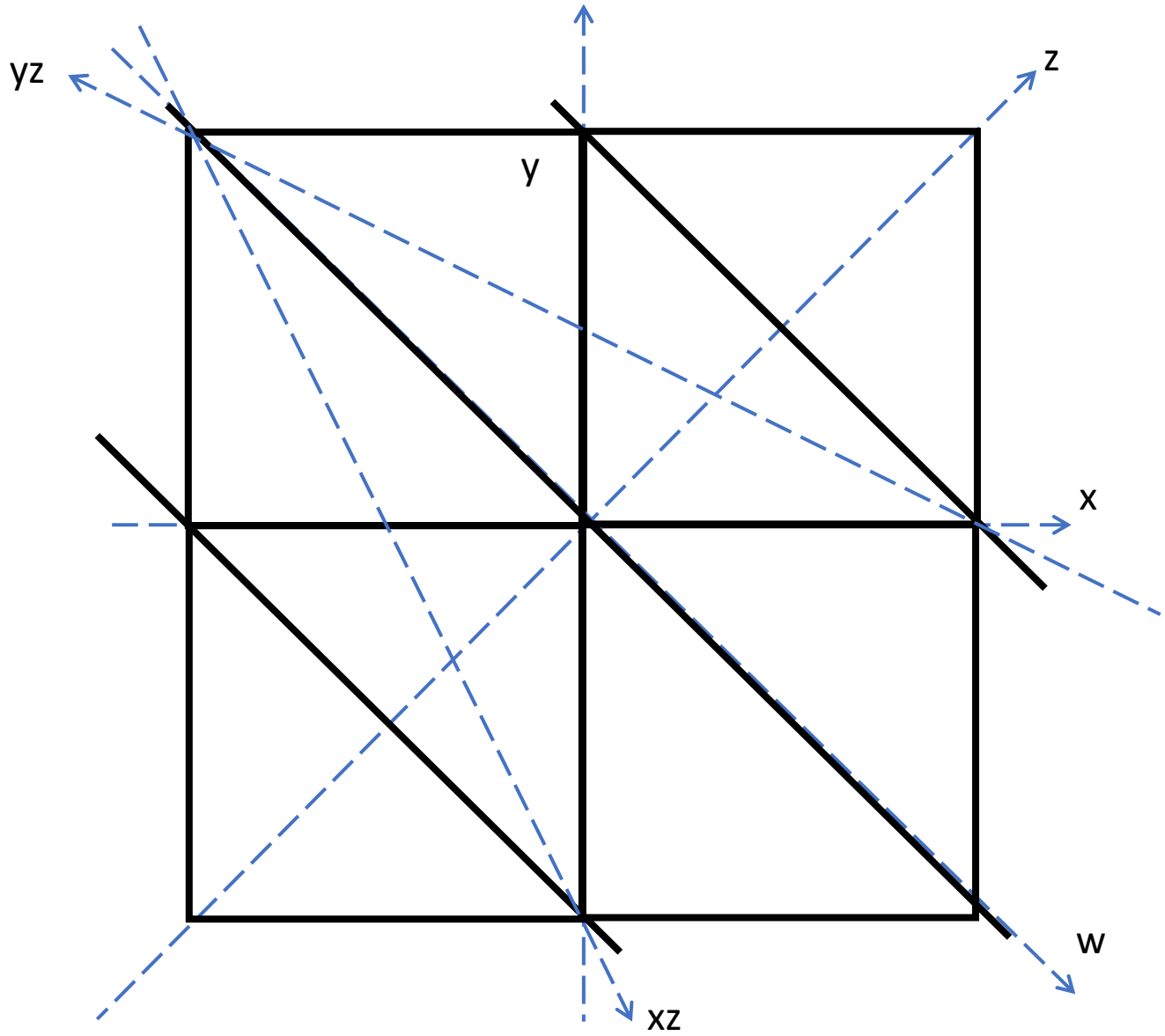

see doc/lattice_tri_3x3.txt
15
6
7
7
12
14
13
6
y
4
8
11
3
4
5
3
1
10
5
1
6
3
2
7
2
3
0
2
4
0
0
1
5
2
9
0
x
z



ising_flat_crit.cc ll.162--168

```
158     int count = field.wolff_cluster.size();
159     for (int i1 = 0; i1 < count; i1++) {
160       for (int i2 = i1; i2 < count; i2++) {
161
162         int s1 = field.wolff_cluster[i1];
163         int x1 = s1 % N;
164         int y1 = s1 / N;
165         int z1 = (x1 + y1) % N;
166         int w1 = (x1 - y1 + N) % N;
167         int xz1 = (x1 - 2 * y1 + 2 * N) % N;
168         int yz1 = (y1 - 2 * x1 + 2 * N) % N;
169
170         int s2 = field.wolff_cluster[i2];
171         int x2 = s2 % N;
172         int y2 = s2 / N;
173         int z2 = (x2 + y2) % N;
174         int w2 = (x2 - y2 + N) % N;
175         int xz2 = (x2 - 2 * y2 + 2 * N) % N;
176         int yz2 = (y2 - 2 * x2 + 2 * N) % N;
177
178         int dx = (N - abs(2 * abs(x1 - x2) - N)) / 2;
179         int dy = (N - abs(2 * abs(y1 - y2) - N)) / 2;
180         int dw = (N - abs(2 * abs(w1 - w2) - N)) / 2;
181
182         if (y1 == y2) corr_x_sum[dx]++;
183         if (x1 == x2) corr_y_sum[dy]++;
184         if (w1 == w2) corr_z_sum[dx]++;
185         if (z1 == z2) corr_w_sum[dx]++;
186         if (xz1 == xz2) corr_xz_sum[dy]++;
187         if (yz1 == yz2) corr_yz_sum[dx]++;
188         corr_zero_x_sum[dy]++;
189         corr_zero_y_sum[dx]++;
190         corr_zero_z_sum[dw]++;
191       }
192     }
193
```

ising_flat_crit.cc ll.162--168




```
158     int count = field.wolff_cluster.size();
159     for (int i1 = 0; i1 < count; i1++) {
160       for (int i2 = i1; i2 < count; i2++) {
161
162         int s1 = field.wolff_cluster[i1];
163         int x1 = s1 % N;
164         int y1 = s1 / N;
165         int z1 = (x1 + y1) % N;
166         int w1 = (x1 - y1 + N) % N;
167         int xz1 = (x1 - 2 * y1 + 2 * N) % N;
168         int yz1 = (y1 - 2 * x1 + 2 * N) % N;
169
170         int s2 = field.wolff_cluster[i2];
171         int x2 = s2 % N;
172         int y2 = s2 / N;
173         int z2 = (x2 + y2) % N;
174         int w2 = (x2 - y2 + N) % N;
175         int xz2 = (x2 - 2 * y2 + 2 * N) % N;
176         int yz2 = (y2 - 2 * x2 + 2 * N) % N;
177
178         int dx = (N - abs(2 * abs(x1 - x2) - N)) / 2;
179         int dy = (N - abs(2 * abs(y1 - y2) - N)) / 2;
180         int dw = (N - abs(2 * abs(w1 - w2) - N)) / 2;
181
182         if (y1 == y2) corr_x_sum[dx]++;
183         if (x1 == x2) corr_y_sum[dy]++;
184         if (w1 == w2) corr_z_sum[dx]++;
185         if (z1 == z2) corr_w_sum[dx]++;
186         if (xz1 == xz2) corr_xz_sum[dy]++;
187         if (yz1 == yz2) corr_yz_sum[dx]++;
188         corr_zero_x_sum[dy]++;
189         corr_zero_y_sum[dx]++;
190         corr_zero_z_sum[dw]++;
191       }
192     }
193
```