

```

./main
Test case: 1
121 396 -51 854
-141 -167 -263 2
-102 847 -109 397
-13 -124 -83 18
-----
Test case: 2
6 13 21 33
-7 -20 -20 -8
15 85 -61 -41
-4 -14 -61 449
-----
Test case: 3
5 6 5 1
21 13 4 -12
13 7 91 101
-25 -27 28 48
-----
Test case: 4
5 6 5 8 17 29 76 42
21 13 4 -9 4 -16 -26 -19
13 11 95 102 86 -15 38 48
1 1 52 49 -47 1 -2 0
13 3 -13 -2 2 1 52 50
1 -1 50 51 -46 26 21 24
19 13 -3 2 20 31 82 38
-22 -24 25 47 -40 -14 -137 -124
-----
Test case: 5
6 13 21 29 -5 -21 32 439
-7 -20 -20 -13 13 48 -118 -101
15 83 -63 -48 -55 -14 -60 449
-17 -29 -54 443 -47 15 -102 -100
15 83 -113 -96 -99 -8 -55 450
-17 -27 -72 445 -48 12 -115 -112
12 82 -114 -94 -110 -31 42 438
-7 13 -64 447 -56 103 -75 -62
-----
Test case: 6
2 2 3 -1
3 13 3 5
9 -7 11 49
2 11 50 -49
-----
Test case: 7
30 -5 15 1 -34
40 0 2 4 -1
52 4 2 -48 5
33 13 -28 52 -5
77 -41 -24 2 27
-----
Test case: 8
85 15 92 112 -51
78 37 26 92 157
131 84 164 -139 -45
-10 87 -96 243 199
316 45 -8 -53 126
-----
Test case: 9
-1 -4 -6 -13
0 13 3 5
0 -37 11 46
-1 11 50 -199
-----
Test case: 10
5 11 18 25 -6 -21 22 389
-8 -20 -20 -13 10 41 -118 -102
12 73 -63 -49 -56 -14 -60 399
-18 -29 -56 393 -48 13 -102 -100
12 73 -113 -97 -100 -8 -55 400
-18 -27 -72 395 -49 9 -115 -112
9 72 -114 -95 -111 -31 30 388
-8 10 -64 397 -57 90 -75 -62
-----

```