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/* Colineares */
#include <stdio.h>

int colinear(int x1, int y1, int x2, int y2, int x3, int y3) {
    return (x1*y2 + y3*x2 + x3*y1 - y2*x3 - y3*x1 - y1*x2) == 0;
}

int main() {
    int n, i, x1, x2, x3, y1, y2, y3;

    scanf("%d", &n);
    for (i = 0; i < n; i++) {
        scanf("%d%d%d%d%d%d", &x1, &y1, &x2, &y2, &x3, &y3);

        if (colinear(x1, y1, x2, y2, x3, y3))
            printf("S\n");
        else
            printf("N\n");
    }
    return 0;
}

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/* Matsum */

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#include <stdio.h>
#include <string.h>

#define NN 2000

int m[NN][NN];

int main() {
    int t;
    int a, b, aa, bb, n;
    scanf("%d", &t);
    while (t--) {
        scanf("%d", &n);
        char cmd[20];
        memset(m, 0, sizeof m);
        while (1) {
            scanf("%s", cmd);
            if (strcmp(cmd, "SET") == 0) {
                scanf("%d%d%d", &a, &b, &aa);
                m[a][b] = aa;
            } else if (strcmp(cmd, "SUM") == 0) {
                scanf("%d%d%d%d", &a, &b, &aa, &bb);
                int s = 0;
                for (int i = a; i <= aa; i++)
                    for (int j = b; j <= bb; j++)
                        s += m[i][j];
                printf("%d\n", s);
            } else break;
        }
    }
    return 0;
}

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/* Reprovado */
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```
#include <stdio.h>
#include <string.h>
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char s[30], nome[30];
int minpt;
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```
int main() {
    int n, t, ct, i, pt;
    scanf("%d", &t);
    for (ct = 1; ct <= t; ct++) {
        scanf("%d", &n);
        scanf(" %s %d", nome, &minpt);

        for (i = 1; i < n; i++) {
            scanf(" %s %d", s, &pt);
            if ((pt < minpt) || ((pt == minpt) && (strcmp(s, nome) > 0))) {
                strcpy(nome, s);
                minpt = pt;
            }
        }
        printf("Instancia %d\n%s\n", ct, nome);
    }
}
```