标签 曼哈顿距离 下的文章

「HDU 4456」Crowd (https://blog.orzsiyuan.com/archives/HDU-4456-Crowd/)

> 题目链接：HDU 4456 (http://acm.hdu.edu.cn/showproblem.php?pid=4456)

F 市的地图是一个 $n \times n$ 的网格，对于每个交叉口，我们为其定义一个人群密集度。最初，每个交叉口的密集度为 0；随着时间的推移，密集度可能会变化。为了计算密集度，警察局的管理人员提出了“k 维密集度”的概念。交叉口 (x_0, y_0) 的“k 维密集度”用 $c(x_0, y_0, k)$ 表示，可以用下式计算：

$$c(x_0, y_0, k) = \sum_{|x-x_0| + |y-y_0| \le k} d(x, y)$$

其中 $d(x, y)$ 为交叉口 (x, y) 的密集度。

此时一共有 m 个操作，操作问题如下 2 个类型：

- `1 x y z`：路口 (x, y) 的密集度 $d(x, y)$ 增加了 z。
- `2 x y z`：询问 $c(x, y, z)$ 的值。

数据范围：$1 \le n \le 10^4$，$1 \le m \le 8 \times 10^4$，对于操作 1 有 $-100 \le z \le 100$，对于操作 2 有 $0 \le z \le 2n - 1$。

Siyuan (https://blog.orzsiyuan.com/author/1/) 2019 年 03 月 11 日

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