```
main():
    read input from file
    built Light object
    for each command
        - check if legal command
        - if so, change lights accordingly
    return number of activated lights.


class Light():
```

$(0,0)$ $(L,0)$

```
    __init__(self, L):
        self.side = L, off. grid = []
        for i in range(L):
            myline = [false for j in range(L)]
        self.grid.append(myline)
```

$(0,L)$ (L,L)

```
    on(self, x1, y1, x2, y2):
        for i in range(x1, x2+1):
            for j in range(y1, y2):
                if i < self.side & j < self.side:
                    self.grid[i][j] = true


    off(self, ...):
        ‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾
                        self.grid[i][j] = false


    switch(self ...):
        ‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾
                    self.grid[i][j] = not self.grid[i][j]
```