Extra Credit 2.

There are n light bulbs in a room. They are all turned off, each light bulb has its own switch, and for convenience, let's label the light bulbs from 1 to n.

Friend One enters the room, and flips the switch on every bulb. (When Friend One leaves, every light bulb is turned on.)

Friend Two enters the room, and flips the switch on every light bulb labeled by an even number. (When Friend Two leaves, about half the light bulbs are turned on.)

Friend Three enters the room, and flips the switch on every light bulb labeled by a number divisible by three.

And so on, and so forth; when Friend i enters they room, they flip the switch on every light bulb labeled by a number divisible by i. This keeps going until Friend n flips the switch on light bulb number n.

Question: Explain to me how many light bulbs are *on* at the end of this process.