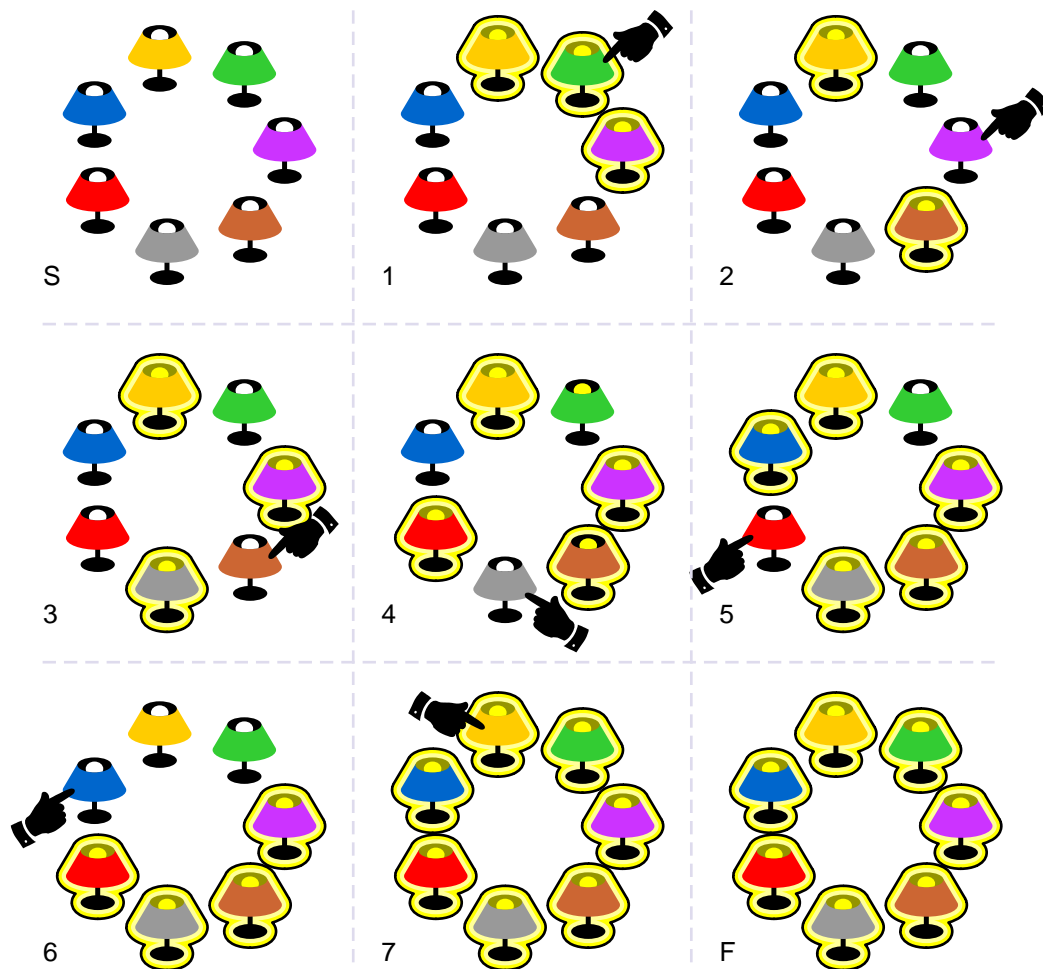


Example

There are seven lights in a circle – as shown in the upper illustration. They are all turned off and the problem is to turn all of them on.

Each light has a switch. The trouble is that the electrician didn't use proper switches. When you press a switch, if a light is on it turns it off, and if a light is off, it turns it on. The electrician also made a mistake in writing the switches. If you press the switch for one light, it not only changes that light, but also the lights on either side. So, if you pressed the switch for light B in the left diagram of the bottom Example illustration, lights A and B would turn on and light C would turn off as shown in the right diagram of that illustration.

Can you figure out a way to turn all the lights on?



There are several solutions. The illustration shows one of them: just press each of the seven switches in order as you go once around the circle. There are more different solutions.