The Three Lights Puzzle DEDUCTIVE REASONING

- You are standing outside a room with three light switches on the wall. One of them controls a light bulb inside the room; the other two do nothing. The door is closed, and you cannot see inside the room. You can manipulate the switches as much as you want, but you may
 - enter the room only once. Once inside, you will see the light bulb
 - (which is either on, off, or warm).
- How can you determine which switch controls the bulb?





The Three Lights Puzzle



- Turn on Switch 1 and leave it on for 5 minutes.
- Turn off Switch 1 and turn on Switch 2.
- Leave Switch 3 off, then enter the room. **Inside the room:**
 - Bulb is $ON \rightarrow Switch 2 controls it.$
 - Bulb is OFF but WARM → Switch 1 controls it.
 - Bulb is OFF and COLD → Switch 3 controls it.



