

*This is a Turing machine that operates by inputting a series of 1's and 0's. The machine understands that the character ">>" means the start, and the character "<<" means the end. It has 5 sections that work together to read the input, and it either accepts the input or rejects it. You start at state 0, follow the instructions and see if the input will be accepted or rejected. Your job is to find the string that it accepts. **The sections will not necessarily be visited in order.***

*Here's an example of how it works: The input is >> 0 0 << . It starts with the ">>" symbol and ends with the "<<" symbol. Then go to state 0 and start by inputting the first, leftmost number. Read the instructions: "IF READ 0, REPLACE WITH X, MOVE **right**, GO TO SECTION 2". When it reads a 0, it says to replace it with an X, so now the input looks like >> X 0 <<. The instructions said to move right a position in the input and go to SECTION 2. Now, the current position is on "0" and the current instructions are in SECTION 2. Keep on moving/following the directions in order to find out if the machine accepts or rejects the input.*

*I've narrowed it down to a list of 8 codes. One of these must work and whichever code is accepted has the correct clue attached with it...*

|               |               |               |               |
|---------------|---------------|---------------|---------------|
| >> 0 1 0 0 << | >> 1 1 1 1 << | >> 0 0 0 0 << | >> 0 0 1 1 << |
| >> 1 0 0 0 << | >> 0 1 1 1 << | >> 1 1 0 1 << | >> 0 0 0 1 << |