

3 Meta-metapuzzle: Cicomatron

(Go to <http://cicomatron.appspot.com/> to view the app)

You are presented with an interface that appears to do basically nothing; you can check basically any string in, you can ask for help and not get it, and you can view xkcd comics (`ssh xkcd`). By typing in the round two metapuzzle answer `launcher`, you are brought to the real puzzle interface.

The interface consists of a prominently displayed number (initially 1), the status of eight ‘units’ (initially ‘not activated’), and a command line. There are eight commands — the round 1 puzzle answers — that each change the currently displayed number in some way. If the displayed number becomes equal to one of the round 2 puzzle answers, the corresponding unit becomes ‘activated.’

The effect the commands have are:

- `pikeriver` → Resets the number to 5
- `newseasons` → Switches the last 2 digits
- `saskatchewan` → Multiplies by 174
- `sistine` → Adds 1 unless the number is $9 \pmod{10}$
- `saturnalia` → Switches the first two digits
- `hermione` → Divides by 11 and discards the remainder
- `indianajones` → Subtracts 1 unless the number is $0 \pmod{10}$
- `angelamerkel` → Switches the first and the last digits

Applying `angelamerkel` to a number ending with 0 will shorten it by one digit, e.g. `angelamerkel(1230)` returns 231; `saturnalia` behaves analogously.

As an example, starting from 1 the sequence of commands `saskatchewan`, `sistine`, `sistine`, `angelamerkel`, `newseasons`, `indianajones` will reach the number 616, thereby activating unit 4.

Once all eight units are activated, you get the message: “LAUNCHER ACTIVATED. CALL HQ! MATHCAMP RAY READY,” which is the answer to the meta-metapuzzle.