



Problem of the Week

Problem C

Digit Swapping

Ali programs three buttons in a machine to swap some digits in a 4-digit number.

Red button: swaps the thousands and tens digits

Blue button: swaps the thousands and hundreds digits

Yellow button: swaps the hundreds and units (ones) digits

Ali types a 4-digit number into the machine. She then presses the following sequence of buttons to produce 6943 as the output.

Red Yellow Blue Red Yellow

What would the output have been if Ali had instead pressed the following sequence of buttons after typing in her original number?

Blue Red Yellow Blue

