

Day 2: Gift Shop

The ranges are separated by commas (,); each range gives its **first ID** and **last ID** separated by a dash (-).

Since the young Elf was just doing silly patterns, you can find the **invalid IDs** by looking for any ID which is made only of some sequence of digits repeated twice. So, 55 (5 twice), 6464 (64 twice), and 123123 (123 twice) would all be invalid IDs.

None of the numbers have leading zeroes; 0101 isn't an ID at all. (101 is a **valid** ID that you would ignore.)

What do you get if you add up all of the invalid IDs?

Answer: 20223751480

Part Two

Now, an ID is invalid if it is made only of some sequence of digits repeated **at least** twice. So, 12341234 (1234 two times), 123123123 (123 three times), 1212121212 (12 five times), and 1111111 (1 seven times) are all invalid IDs.

What do you get if you add up all of the invalid IDs using these new rules?

Answer: 30260171216