Week 28 Extension Question: Hash Tables

A hash table of size 10 stores student IDs.
The hash function is

$$H(x) = (sum\ of\ digits)\ mod\ 10.$$

When multiple student IDs hash to the same slot, **linear probing** takes place and the ID is stored in the next available slot.

The IDs in the table are: 2145, 3509, 1050, 6948, 6600, and one unknown number Y.

When Y is inserted, it collides with another number and is placed in another slot after three linear probes of +1 each.

Find all possible values for Y in terms of their digit-sum value, and give an example.