PIN Numbers

1st strategy:

1st slot has 9 digit choices, 2nd has 8 choices (cannot be same as 1st), 3rd has 7 choices (different from 1st, 2nd), 4th has 6 choices.
Total = 9×8×7×6 PINs.

2nd strategy:

Choose the repeating digit first: 9 digit choices, in 6 arrangements.
The next empty slot has 8 digit choices, last slot has 7 digit-choices.
Total = 9×6×8×7 PINs.

Therefore both strategies happen to give the same pool size!

6 ways to place the repeated digits:

X	X		
X		X	
X			X
	X	X	
	X		X
		X	X