Problem 4: Digits and Clues

Find all 4-digit sequences that match the following clues

 2801
 2107
 1203
 3002

In each clue, the number of 1's is the number of correctly placed digits.

As always, show your work, fully explain and justify your answer.

Posting Date 10/8/16. Submit solutions to Noah Aydin, Mathematics Department, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 4 pm on 10/20/16.