P5 KEY MODULE
Counting

Time: 20 *min* Full marks: 10 points Name: _____ Score: _____

1. (3 points) At a party, each person shakes hands with every other person exactly once. Given that there are 435 handshakes at the party, how many people are there at the party?

2. (3 points) There are 9 balls in a row on the table. How many ways are there to take away three balls such that any two of these three taken are not adjacent to each other?

3. (4 points) Use digits 1, 2, 3 and 4 to form a 4-digit number. If no digit is repeated, or only 1 digit is repeated, this 4-digit number is called a "good number". For example, 1234, 1113 and 1233 are good numbers but 1122 is not. How many good numbers are there?