**Winter 2016 - Cmpt 103**

**Section 41 - Lab 3 mark sheet**

**Student name:** Metehan Dagsuyu **Total: 98 marks**

**Programming style: [14 marks]**

* General style requirements and properly spaced code:  **-1**
  + compress is over 20 lines long which is too long. It should have been broken down into smaller functions. There are 6 lines repeated twice which makes them a great candidate for a function.
* Accurate and well-written comments: **-2**
  + compress has only one comment to clarify how the compression was performed and the problem was not broken down into multiple helper functions to see the approach. expand has similar problems.
* Function headers for encrypt and decrypt:
  + It would be helpful to provide an exact breakdown of how the encryption / decryption will occur perhaps with an example.
* Function header syntax for encrypt should start with ‘new =’ since this is what should be returned as in ‘new = encrypt(string)’ rather than just ‘encrypt(string)’. A similar problem occurs in decrypt, compress, and expand: **-2**
* Function header purposes for compress and expand should explain in detail how the compression and expansion are performed: **-1**
* In compress, you should also mention that if a letter occurs only once, it is not followed by a number.

**Question 1: [40 marks]**

**Part (a) - encrypt: [20 marks]**

* Function worked properly when tested

**Part (b) - decrypt: [20 marks]**

* Function worked properly when tested

**Question 2: [36 marks]**

**Part (a) - compress: [16 marks]**

* When a letter occurs twice in a string (ie.'aaabbaab'), your approach fails (‘a3bab’): **-4**

**Part (b) - expand: [20 marks]**

* Function worked properly when tested

**Bonus – expand\_any: [8 marks]**

* Handled most cases except it does not handle any cases where the last value in the string is a single letter. In these instances, it omits the last letter: **-2**

**Failed:**

expand\_any('a12b10c')

expand\_any("a120b100c")

expand\_any("a120c1200d")