# PASSWORDS

In this final program of the contest you will read in a series of potential user chosen passwords and return a numeric value associated with that password indicating its relative strength.

The numeric value that you will return will be computed using the set of rules below. That value indicates the 'strength' of the password. The bigger the number, the more secure the password is considered to be.

**Rules to compute the strength of a password:**

0) By default the strength is 0. Use the rules below to find the proper value associated with your password.
1) If there are at least 8 characters, add +10 to the strength.
2) If longer than 8 characters, add +1 per every two-characters.
3) If the password contains both upper and lower case, add +1 to the strength.
4) If the password contains at least one numeric character, add +1 to the strength.
5) If the password contains at least one special character, add +1 to the strength.
6) For every two consecutive characters that aren't of the same type (alphabetic, numeric, special), add +1 to the strength.

**Note:**
* Alphabetic characters can be either lowercase (a..z) or uppercase (A..Z).
* Special characters are neither alphabetic or numeric.

**Sample input data (passwords.txt)**
abc
abcdefgh
abcdefghi
abcdefghij
abcdefghij0
Abcdefghij0
0123456789
66Nk+79=abc

**Sample Output:**
Password abc strength is 0
Password abcdefgh strength is 10
Password abcdefghi strength is 10
Password abcdefghij strength is 11
Password abcdefghij0 strength is 13
Password Abcdefghij0 strength is 14
Password 0123456789 strength is 12
Password 66Nk+79=abc strength is 19

**Data Set 1 – Input**
short
bobbyo124r
baaaaaaadpasswwwworrd
1a2s3d4f5g6h
AsD3%6Hk)8~m
pppppppppPPPpppppppppppppppppppppPPPP

**Data Set 1 – Output (20 marks each)**
Password short strength is 0
Password bobbyo124r strength is 14
Password baaaaaaadpasswwwworrd strength is 16
Password 1a2s3d4f5g6h strength is 24
Password AsD3%6Hk)8~m strength is 23
Password pppppppppPPPpppppppppppppppppppppPPPP strength is 24

**Data Set 2 – Input**
brebeuf
CAthedr07@
ham=i1tonontario
chiarelliC
12345678ABCDEFG~!@#$%

**Data Set 2 – Output (100 marks)**
Password brebeuf strength is 0
Password CAthedr07@ strength is 16
Password ham=i1tonontario strength is 20
Password chiarelliC strength is 12
Password 12345678ABCDEFG~!@#$% strength is 20