

ICS 4U Test of Java Basics – Practical

This section is open book (notes and text book), with the use of your computer. Complete the following programs, save them on the H drive and print them out. Make sure your name is in comments at the top of each program

1. I've decided to start saving for my retirement. This year I am putting away \$2000 and every subsequent year I know I can increase my deposit by 5%. I place my money in an investment that pays 8% annual interest (compounded annually). How much money will I have in 20 years when I retire?
Save as **PracTest11.java** (10 marks)
2. After many attempts to come up with a fool-proof questionnaire for the Massey Dating service they have decided to use a simpler method. This method involves matching up people based purely on their names. The new system involves a point system. If both the first letters of the potential matches are the same then it is 5 points. For each other letter that matches 1 point is added regardless of position. To demonstrate this new system make a cut-down version that only works for first names, ignores gender and assumes that all letters are the same case. Take 5 names from the user then show how many points each pair would have.

e.g.

Save as **PracTest12.java** (10 marks)

input

```
sam
sally
debra
ann
nick
```

output

```
sam, sally      6
sam, debra      1
sam, ann        1
sam, nick       0
sally, sam      6
sally, debra    1
sally, ann      1
sally, nick     0
debra, sam      1
debra, sally    1
debra, ann      1
debra, nick     0
ann, sam        1
ann, sally      1
ann, debra      1
ann, nick       2
nick, sam       0
nick, sally     0
nick, debra     0
nick, ann       2
```