

Labs

(2) Level A	(2) Level B	(2) Level C
Celsius to Fahrenheit	Class Roster	Tic Toe Toe Grader
Words	Sum	ASCII Totals

Celsius to Fahrenheit

Write a program that reads Celsius values from a file and prints then those temperatures in Fahrenheit to the screen.

File Format:

- 1st Line – Number of Temperatures in the file
- Addition Lines
 - Each line of line will contain a single temperature in Fahrenheit.

Example File:

```
3
0
30
200
```

Example Output:

```
32
86
392
```

Rubric (counts as 1 other grade)

Points	Task
40	Reads data from the file
60	Prints the Temperatures

Words

Write a program that will read in ten words from a file and print them back to the screen. These words can be separated by a '*', '%', '@' or a space. These 10 words will all be on one line.

File Format:

- A single line of text containing 10 words separated by the following symbols:
 - '*'
 - '%'
 - '@'
 - ' '

Example File:

time*bob*so*glue*bird pizza%cat hat@class*pass

Example Output:

time
bob
so
glue
bird
pizza
cat
hat
class
pass

Rubric (counts as 1 other grade)

Points	Task
40	Reads data from the file
60	Prints the Temperatures

Class Roster

Write a program that reads ids and names from a file in the format (FirstName FirstName, ID) and prints them back out to the screen in the Format (ID - LastName, FirstName).

File Format:

- The file will contain an unknown number of students in the format:
 - FirstName FirstName, ID

Example File:

Billy Johnson, 123456
Jimbo Smith, 253647
Laura Freeman, 857356
Fred Flint, 123332
Freddy Raymond, 565432

Example Output:

123456 – Johnson, Billy
253647 – Smith, Jimbo
857356 – Freeman, Laura
123332 – Flint, Fred
565432 – Raymond, Freddy

Rubric (counts as 1 minor grade)

Points	Task
40	Reads data from the file
60	Prints the Temperatures

Sum

Write a program that reads lines of numbers from a file and then prints out the sum of the numbers on each line.

File Format:

- The file will contain an unknown number of number lines:
 - Each line will have an unknown number of double values separated by commas

Example File:

```
45,17.3,52,13.8
695
88.88,6877,23,17,22,13
```

Example Output:

```
408
695
15840
```

Rubric (counts as 1 minor grade)

Points	Task
40	Reads data from the file
60	Prints the Temperatures

Tic Tac Toe Grader

Write a program that reads in 5 Tic Tac Toe boards and prints the state of the game for each. The states will be (X WINS, O WINS, TIE, PLAYING). You must write and use the following method in your program:

```
// Pre: Receives a tic tac toe board
// Post: Returns one of the following Strings based on the values in board:
// "X WINS", "O WINS", "TIE", "PLAYING"
public String gameState(char[][] board)
{ }
```

File Format:

- Contains 5 tic tac toe boards each separated by a blank line
 - Each board will be 3 different lines
 - Each line will contain 1 row of data (3 characters)

Example File:

```
OXX
OOO
XX
```

```
XOO
OXX
OXO
```

```
XXO
XOO
OX
```

```
XO
XXO
XO
```

```
XO
OXX
XO
```

Example Output:

O WINS

TIE

O WINS

X WINS

PLAYING

Rubric (counts as 2 minor grades)

Points	Task
40	Reads data from the file
60	Prints the Temperatures

ASCII Totals

Write a program that reads an unknown number of lines of text from a file and prints the total of the character values for each line. You must write and use the following method in your program:

```
// Pre: Receives a String
// Post: Returns the total of the character values in the String as an int
public int asciiTotal(String sentence)
{ }
```

File Format:

- The file contains an unknown number of lines of text

Example File:

```
Bob likes cheese
Turtles move fast
Tina likes Jack
```

Example Output:

```
1496
1688
1373
```

Rubric (counts as 2 minor grades)

Points	Task
40	Reads data from the file
60	Prints the Temperatures