# Worksheet 9b – Two-dimensional lists

1. **Finding the size of a 2D list**

State the outcome you would expect if you ran the code below. You SHOULD NOT run this code – write down what you expect to happen.

**filmRatings**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Reviewer 1 | Reviewer 2 | Reviewer 3 |
| **Lion** | 9.7 | 7.8 | 9.5 |
| **Transformers** | 3.7 | 6.8 | 5.2 |
| **Pirates of the Caribbean** | 6.1 | 4.9 | 7.3 |
| **Moana** | 8.2 | 7.9 | 6.7 |
| **War Games** | 7.3 | 8.1 | 7.7 |

filmRatings = [ [ “Lion” , 9.7 , 7.8 , 9.5 ] ]  
filmRatings.append( [“Transformers” , 3.7 , 6.8 , 5.2] )  
filmRatings.append( [“Pirates of the Caribbean” , 6.1 , 4.9 , 7.3] )  
filmRatings.append( [“Moana” , 8.2 , 7.9 , 6.7] )  
filmRatings.append( [“War Games” , 7.3 , 8.1 , 7.7] )

print(len(filmRatings))

print(len(filmRatings[0]))

print(len(filmRatings[1]))

Now try writing the program and see if you were correct.

1. **Stepping through a row**

Add to the program from Question 1 to print each value from the row about Lion (the name and the 3 ratings) one at a time. You must use a for loop to complete this.

Extension: Write the program so that the user can choose which row to display (0-4).

1. **Stepping through a column**

Add to the program from Question 1 to print the name of each film, one at a time. You must use a for loop to complete this.

Extension: Allow the user to select a reviewer (1-3) and display the scores that reviewer has given for each film. You should also display the name of each film.

1. **Using a running total**

Use a running total variable to find the total reviewer score for **Lion**. Divide this by the number of reviews to get the average score. The program has been started, to help you.

total = 0  
for count in range

1. **Rating reviewers**

Ask the user for the number of a reviewer (from 1-3). Calculate their average rating.

Extension: Display the average ratings given by each reviewer.