# Homework 9 Two-dimensional lists Answers

1. State the address of the values (a), (b), …(f) (ignore the header row)­:

**games**

|  |  |  |  |
| --- | --- | --- | --- |
| Game | Genre | 2016 Sales (millions) | Platform |
| Pokemon Sun/Moon | Role Playing | 12.0 | 3DS |
| FIFA 17 | (a) | 10.0 | (b) |
| Uncharted 4: A Thief’s End | Shooter | (c) | PS4 |
| (d) | Shooter | 6.3 | PS4 |
| Battlefield 1 | (e) | 6.25 | PS4 |
| Grand Theft Auto V | Action | 4.3 | (f) |

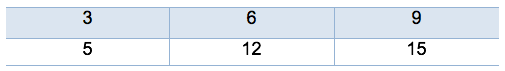
*Source: http://www.vgchartz.com/yearly/2016/Global/*  
  
(a) games[1][1]  
  
(b) games[1][3]  
  
(c) games[2][2]  
  
(d) games[3][0]  
  
(e) games[4][1]  
  
(f) games[5][3]

[5 marks]

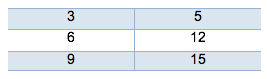
1. Choose which 2D list would be created by running the following code:

scores = [ [3,5] , [6,12] , [9,15] ] [1 mark]

(a)

­­

(b)



1. Look back at Question 1. State the result of these lines of code:
2. print(len(games)) [1 mark]  
   6 – counts the number of rows
3. print(len(games[0])) [1 mark]  
   4 – counts the number of columns in row 0
4. State the result and describe the purpose of the following code:

for count in range(len(games[2])):  
 print(games[2][count] [2 marks]  
Steps through and prints the details for the game in row 2 (third row down – Uncharted 4)

1. State the result and describe the purpose of the following code:

total = 0  
for count in range(len(games)):  
 total = total + games[count][2]  
print(total) [2 marks]

Steps through each row and counts up the total sales for each game (column 2).  
Actual total is not known because of (c) for Uncharted 4.

1. State the result and describe the purpose of the following code:

games = sorted(games, key=lambda data:data[0], reverse = True)  
print(games) [2 marks]

Sorts the table by game title in reverse alphabetical order (Uncharted first, Battlefield last)

[Total 14 marks]