

Name _____ Period _____

Skill 23.1 Exercise 1

Refer to the image below to answer the following.

gradebook

	Assignment 1	Assignment 2	Assignment 3	Assignment 4	Assignment 5
Bart	4.5	1	5	2	4
Kyle	R	5	4	2	2.5
Bugs	1	2	3	4	3
Marvin	4	M	3	3.5	4

What is the row and column associated with Kyle's score on Assignment 3?

What is the value associated with the following location: row = 3, col = 2

What is the length of row = 2?

What is the length of column 5?

Skill 23.2 Exercise 1

Consider the following a matrix

5	-16	9	21
22	19	-101	36
18	17	64	-2

(a) Write a single line of code that could be used to declare and initialize the size of the array above, but do not populate it with values.

(b) Write a single line of code that will create the above integer array and populate it with values.

(c) Write a line of code that will printout the array element occupied by -101

(d) Write a single line of code that will change value occupied by -2 to 2

(e) What is the value associated with a[2][1]?

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Skill 23.3 Exercise 1

Refer to the gradebook array below which creates a 2D array of grades.

```
String gradebook[][]={{ "5", "4.5", "3", "4"},  
{"2", "3", "2.5", "4", "R", "3.5"},  
{"4", "1", "3.5", "5", "4", "1", "5"},  
{"5", "2", "3.5", "3", "4.5"}};
```

(a) What is the length of each row?

(b) Write code to print the length of the first row and the last row,

Skill 23.4 Exercise 1

Refer to the gradebook array below which creates a 2D array of grades.

```
String gradebook[][]={ { "5", "4.5", "3", "4"},  
{"2", "3", "2.5", "4", "R", "3.5"},  
{"4", "1", "3.5", "5", "4", "1", "5"},  
{"5", "2", "3.5", "3", "4.5"} };
```

(a) Write code to print out all the values in the array in a table format

(b) A new student has joined the class. Declare a new array that can accommodate one more student with 5 assignments. Write code to copy all the values from the gradebook array to this array.

AP Computer Science A
Ticket Out the Door
Set 23: 2D Arrays

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