

Chapter 17 Exercise:

Write in a word file or text file.

Consider the following *a* matrix for problems 1 - 11:

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

1. Write a single line of code that will create the above integer array. Call the array *a*.
2. Write a line of code that will printout the array element occupied by -101.
3. The above table can be described as:
(a) an Array (b) a Matrix (c) numbers that could be represented as subscripted variables (d) a, b, and c (e) none of these
4. Write a line of code that will print the number of rows in matrix *a*.
5. Write a line of code that will print the number of columns (in matrix *a*) in the row given by index 2.
6. What is printed by `System.out.println(a[1][3]);` ?
7. Show what the printout will look like:

```
for (int row = 0; row < a.length; row++)  
{  
    for(int col = 0; col < a[row].length; col++)
```

```

        {
            System.out.print(a[row][col] + "\t");
        }
        System.out.println(" ");
    }

```

8. What is printed by the following?

```

Arrays.sort(a[0]);
System.out.println(Arrays.binarySearch(a[0],5));

```

9. What is printed by the following?

```

Arrays.sort(a[0]);
System.out.println( Arrays.binarySearch(a[0],0) );

```

10. Show what the matrix a would look like after the following code executes:

```

for (int row = 0; row < a.length; row++)
{
    for(int col = 0; col < a[row].length; col++)
        a[row][col] = row * col;
}

```

11. Show what the matrix a would look like after the following code executes:

```

Arrays.fill(a[2], -156);

```