Array List (Class notes)  
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2020 spring coding camp resource (Array week 2)

horizontal lineArray lists are created with an initial size. When this size is exceeded, the collection is automatically enlarged. When objects are removed, the array may be shrunk.

* Before you create, you always have to **import java.util.ArrayList**;
* Create an array List
  + ArrayList< > = new ArrayList< >() ;
  + Ex. ArrayList< > =

|  |  |  |
| --- | --- | --- |
| Method | Description | Example (spongebob.ver) |
| list.add(“value”) | Adds the value at the end of the list |  |
| list.add(index, value) | Adds the given value at the given index, shifting subsequent values right |  |
| list.get(index) | Gets the value at the given index |  |
| list.remove(index) | Removes the value at the given index |  |
| list.set(index, value) | Replaces the value at the given index with the given value |  |
| size() | Returns the current number of elements in the list |  |

POP QUIZ (Array) from the last class // Class Review

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| 1. Which of the following choices is the correct syntax for declaring/initializing an array of ten integers? | |
| 1. int[] a = new int[10]; 2. int a[10]; 3. []int a = [10]int; 4. int a[10] = new int[10]; 5. int[10] a = new int[10]; | |

2. What goes in the blank?

int[] numbers = new int**[??]**;

1. Nothing
2. Index of an array called numbers
3. Length of an array called numbers
4. 0

3. Draw an array graph(Fill in the blanks in below)

double[] results = new double [5];

results[2] = 3.4; results[4] = -0.5;

\*if there is nothing, then the elements would be 0.0 \*

Answer : [ 0.0 , , , , , ]

4. Match

**Element. .**object that stores many values of the same type

**Index. .**one value in an array.

**Array**.  **.**a 0-based integer to access an element from an array