

Lab Goal : This lab was designed to introduce and demonstrate how to use an ArrayList.

Lab Description : Create a method that will receive an integer parameter and then return an ArrayList that contains all of the number's factors, excluding 1 and itself. Create a 2nd method that will remove all numbers from its ArrayList parameter that are not composite numbers. Composite numbers are divisible by 1, itself, and must have at least 1 other positive factor. You will need to use % to determine if a number is a factor.

```
public class ArrayListFunHouse
{
    public static ArrayList<Integer> getListOfFactors(int number)
    {
        // you will add code
    }

    public static void keepOnlyCompositeNumbers( List<Integer> nums )
    {
        // you will add code
    }
}
```

Sample Data :

```
9
23
50
100
762
2 6 8 9 10 12 13 15 17 24 55 66 78 77 79
```

Files Needed ::

```
ArrayListFunHouse.java
ArrayListFunHouseRunner.java
```

Sample Output :

```
[3]
[]
[2, 5, 10, 25]
[2, 4, 5, 10, 20, 25, 50]
[2, 3, 6, 127, 254, 381]
```

Original List

```
[2, 6, 8, 9, 10, 12, 13, 15, 17, 24, 55, 66, 78, 77, 79]
```

Composite List

```
[6, 8, 9, 10, 12, 15, 24, 55, 66, 78, 77]
```