

**Worksheet 5.1: ArrayList**

Fill in the description for the partial methods list below. For the examples in the right column, you may use the following declaration and initialization:

```
ArrayList<String> sample = new ArrayList<String>();
```

<i>Method</i>	<i>What does it do?</i>	<i>Describe its parameters &amp; what is returned.</i>	<i>Examples using this method.</i>
<code>int size()</code>			
<code>boolean add(E element)</code>			
<code>void add(int index, E element)</code>			
<code>E get(int index)</code>			
<code>E set(int index, E element)</code>			
<code>E remove(int index)</code>			
<code>boolean isEmpty()</code>			

1. Write code that will declare and initialize an `ArrayList` of `Integer` values called `theNums`.
2. Write code that will fill `theNums` with the following values (in order): 1, 1, 2, 2, 2, 3, 3, 4, 4, 4, 5, 5, 6, 6, 6, 7, 7, 8, 8, 8.  
[Hint: don't hard code this! This will take far less than 20 lines of code.]
3. Write code that will print the sum of `theNums`.
4. Write code that will change all odd numbers to twice their value. (i.e. all the 1 will be 2, all the 3 will be 6, all the 5 will be 10, etc.) The positions of the original elements should not change.
5. Write code that will remove all of the 2s and all of the 6s. (Do not hard-code).