

Lab Goal : This lab was designed to teach you how to use a set.

Lab Description : Read in a list of numbers and determine which ones are odd and which ones are even. You will add all of the even numbers to a set and all of the odd numbers to a different set.

Sample Data :

```
1 5 9 4 6 8 12
3 5 7 17 29 4 6 56 72
3 6 12 2 28 6
4 4 4 4 4 4 4 4
1 1 1 1 1 1 1 1
1 2 3 4 5 6 7 8 9
```

Sample Output :

```
ODDS : [1, 5, 9]
EVENS : [4, 6, 8, 12]
```

```
ODDS : [3, 5, 7, 17, 29]
EVENS : [4, 6, 56, 72]
```

```
ODDS : [3]
EVENS : [2, 6, 12, 28]
```

```
ODDS : []
EVENS : [4]
```

```
ODDS : [1]
EVENS : []
```

```
ODDS : [1, 3, 5, 7, 9]
EVENS : [2, 4, 6, 8]
```

Files Needed ::

```
OddEvenSets.java
OddRunner.java
oddeven.dat
```

EXTRA OPTION

Add in a perfect Set and output all of the perfect numbers.

6 is perfect because it is equal to the sum of its divisors.

Use split() to split the String input into a String[] array.

```
String[] words = "abc cde fgh ijk".split(" ");

Set<String> set = new TreeSet<String>(Arrays.asList(words));
```