



Section 6 - Collections and Generics Quiz Answers

1.

```
ArrayList<Integer> items = new ArrayList<Integer>();  
for (int i = 0; i < 100; i++)  
{  
    items.add((int) (Math.random() * 100));  
}
```

```
Collections.sort(items, new Comparator<Integer>()  
{  
    @Override  
    public int compare(Integer o1, Integer o2)  
    {  
        if (o1 > o2)  
            return -1;  
        else if(o1 < o2)  
            return 1;  
        return 0;  
    }  
});
```

2.

Generic classes are useful when you want your class to operate on any kind of object (you can store anything inside an ArrayList, for example).

3.

Use a HashMap. You can access an index in an array much faster (recall that HashMaps are just arrays that use simple arithmetic magic) than you can iterate over a large number of items in an ArrayList while comparing each id to the asteroid's id.

4.

When you want to automatically maintain ordering of items in some set after every addition/deletion.