

Create a method `getDistance(a, b)` that calculates the distance between a and b.

### **Input**

```
import java.util.HashMap;
```

```
import java.util.Map;
```

```
import java.util.PriorityQueue;
```

```
public class PrioRITYQueue Example {
```

```
public static void main(String[] args){
```

```
    PriorityQueue<Double> pq = new PriorityQueue<Double>((x,y)-> {Double z =  
y-x;return z.intValue(); });
```

```
    PrioRQueueExample pqe = new PrioRITY Queue Example();
```

```
    //Number of ATMs to return i.e. K
```

```
    int num_ATMs = 3;
```

```
    double curr_loc = 0.00;
```

```
    Map<String,Double> nallAT Locs = new HashMap<String,Double>();
```

```
    //Map of ATM names and their distance coordinates
```

```
    nallATMLocs.put("atm1",45.0);
```

```
    nallATMLocs.put("atm2",78.0);
```

```
    nallATMLocs.put("atm3",54.0);
```

```
    nallATMLocs.put("atm4",64.0);
```

```

nallATMLocs.put("atm5",35.0);

nallATMLocs.put("atm6",42.0);

nallATMLocs.put("atm7",57.0);

nallATMLocs.put("atm7",1.00);

nallATMLocs.forEach((atm,dist) ->{if(pq.size() < num_ATMs){

pq.add(pqe.getLocation(curr_loc,dist));}

else{

if(    pq.peek() > pqe.getLocation(curr_loc,dist)){

pq.poll();

pq.add(pqe.getLocation(curr_loc,dist));

}

}

});

pq.forEach(atm Lock -> System.out.println(atmLoc));

}

private double getLocation(double curr,double atm){

return atm - curr;

}

```

```
}
```

## **OutPut**

```
$javac PrioRQueueExample.java
```

```
$java -Xmx128M -Xms16M PrioRQueueExample
```

**42.0**

**1.0**

**35.0**