Practical 3

```
import java.util.*;
public class fractinalKnapsak {
   public static void main(String args[]) {
      int val[] = {60, 100, 120};
      int weight[] = {10, 20, 30};
      int w = 50;
      double ratio[][] = new double[val.length][2];
      for (int i=0; i<val.length; i++) {
         ratio[i][0] = i;
         ratio[i][1] = val[i]/(double)weight[i];
      }
      Arrays.sort(ratio, Comparator.comparingDouble(o -> o[1]));
      int capacity = w;
      int finalVal = 0;
      for(int i=ratio.length-1; i>=0; i--) {
         int idx = (int)ratio[i][0];
         if(capacity >= weight[idx]) {
            finalVal += val[idx];
            capacity -= weight[idx];
         }else{
            finalVal += (ratio[i][1] * capacity);
            capacity = 0;
            break;
         }
      }
      System.out.println("final value ="+ finalVal);
   }
}
```

Output :- final value =240