```
interface Comp { public int compare( Object x, Object y); }
class DoubleCmp implements Comp
{ public int compare( Object a, Object b)
  { double fa= ((Double) a).doubleValue();
    double fb= ((Double) b).doubleValue();
    if (fa < fb) return -1;
    if (fa > fb) return 1;
    return 0; }
}
class InvCmp implements Comp
{ public int compare( Object a, Object b)
  { double fa= ((Double) a).doubleValue();
    double fb= ((Double) b).doubleValue();
    if (fa < fb) return 1;
    if (fa > fb) return -1;
    return 0; }
}
class Trinaif
{  static public double random( double x )
        { return (x * Math.random() ); }
   public static void swap( Object[] tab, int a, int b)
        { Object tmp=tab[a]; tab[a]=tab[b]; tab[b]=tmp;}
   public static boolean check( Object[] tab, Comp cmp)
        { boolean okay=true;
        for( int i=0; i+1 < tab.length; i++)
                okay= okay && (cmp.compare( tab[i],  tab[i+1]) <= 0);
        return okay; }
   public static void trinaif( Object[] tab, Comp cmp)
        {       int fin= tab.length-1;
                for( int i=0; i<fin; i++)
                {       int smallest= i;
                        for (int j=i+1; j<= fin; j++)
                        if (cmp.compare( tab[j], tab[smallest])== -1)
                                smallest = j;
                        swap( tab, i, smallest);
                }
                if (! check( tab, cmp)) System.out.println("BUG\n");
        }
    public static void main (String[] args)
    {   int n=20;
        Object tab[]= new Object[n];
        for (int i=0; i<n; i++)
        { tab[i] = new Double( Math.floor(100000. * Math.random())); }
        for (int i=0; i<  Math.min(n, 10); i++)
                System.out.print( tab[i].toString() + " ");
        System.out.println("------------------\n");
        trinaif( tab, new DoubleCmp() );
        for (int i=0; i< Math.min(n, 20); i++)
                System.out.print( tab[i].toString() + " ");
        System.out.println("------------------\n");
        trinaif( tab, new InvCmp() );
        for (int i=0; i< Math.min(n, 20); i++)
                System.out.print( tab[i].toString() + " ");
        System.out.println();
  }
}
```