

Сортировка выбором

```
procedure SortByChoice(a: array of integer);  
begin  
  for var i := 0 to a.High-1 do  
    begin  
      var (min,imin) := (a[i],i);  
      for var j := i + 1 to a.High do  
        if a[j] < min then  
          (min,imin) := (a[j],j);  
      Swap(a[imin],a[i]);  
    end;  
end;
```

Пузырьковая сортировка

```
procedure BubbleSort(a: array of integer);  
begin  
  for var i := 0 to a.High-1 do  
    for var j := a.High downto i+1 do  
      if a[j] < a[j-1] then  
        Swap(a[j], a[j-1]);  
end;
```

```
procedure BubbleSort2(a: array of integer);
```

```
begin  
  var i := a.High;  
  var q: boolean;  
  repeat  
    q := true;  
    for var j := 0 to i - 1 do  
      if a[j+1] < a[j] then  
        begin  
          Swap(a[j+1], a[j]);  
          q := false;  
        end;  
    i -= 1;  
  until q;  
end;
```

Сортировка вставками

```
procedure SortByInsert(a: array of integer);  
begin  
  for var i:=1 to a.High do  
    begin  
      var x := a[i];  
      var j := i - 1;  
      while (j >= 0) and (x < a[j]) do  
        begin  
          a[j+1] := a[j];  
          j -= 1;  
        end;  
      a[j+1] := x;  
    end;  
end;
```

Стандартная Sort(a)

Сортировка выбором

```
procedure SortByChoice(a: array of integer);  
begin  
  for var i := 0 to a.High-1 do  
    begin  
      var (min,imin) := (a[i],i);  
      for var j := i + 1 to a.High do  
        if a[j] < min then  
          (min,imin) := (a[j],j);  
      Swap(a[imin],a[i]);  
    end;  
end;
```

Пузырьковая сортировка

```
procedure BubbleSort(a: array of integer);  
begin  
  for var i := 0 to a.High-1 do  
    for var j := a.High downto i+1 do  
      if a[j] < a[j-1] then  
        Swap(a[j], a[j-1]);  
end;
```

```
procedure BubbleSort2(a: array of integer);
```

```
begin  
  var i := a.High;  
  var q: boolean;  
  repeat  
    q := true;  
    for var j := 0 to i - 1 do  
      if a[j+1] < a[j] then  
        begin  
          Swap(a[j+1], a[j]);  
          q := false;  
        end;  
    i -= 1;  
  until q;  
end;
```

Сортировка вставками

```
procedure SortByInsert(a: array of integer);  
begin  
  for var i:=1 to a.High do  
    begin  
      var x := a[i];  
      var j := i - 1;  
      while (j >= 0) and (x < a[j]) do  
        begin  
          a[j+1] := a[j];  
          j -= 1;  
        end;  
      a[j+1] := x;  
    end;  
end;
```

Стандартная Sort(a)