LB – 07

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| **1** | **2** |
| **function** MaxVsInd(a: **array of** real): **array of** real;  **begin**  result := Arr(real(a.IndexMax), a.Max)  **end**;  **function** AboveOne(a: **array of** real): integer;  **begin**  result := 0;  **for var** i := 0 **to** a.High **do**  **if** a[i] > 1 **then**  result += 1  **end**;  **function** SumEven(a: **array of** real): real;  **begin**  result := 0.0;  **for var** i := 0 **to** a.High **do**  **if** i.IsEven **then**  result += a[i]  **end**;  **begin**  **var** n := 10;  **var** a := **new** real[10];  **for var** i := 0 **to** a.High **do**  a[i] := arctan(2 \* (i + 1) + (i + 1) / n) - sin(i + 1 + n);    **var** f := OpenWrite('result.txt');    **for var** i := 0 **to** a.High **do**  f.Write(Round(a[i], 4), ' ');    f.Writeln;  Writeln(f, MaxVsInd(a)[0]:4, MaxVsInd(a)[1]:10:4);  f.Writeln(AboveOne(a));  f.Writeln(SumEven(a));  f.Close  **end**.  6 2.4643  6  7.77746612979155 | **function** MaxRowProduct(a: **array** [,] **of** integer): integer;  **begin**  result := a.Row(0).Product;  **for var** i := 1 **to** a.RowCount-1 **do**  **begin**  **var** p := a.Row(i).Product;  **if** result < p **then**  result := p  **end**;  **end**;  **function** get\_k(c: **array of** real; m: real; pn: integer): real;  **begin**  result := c.Sum + sqrt(pn) / 2 \* m  **end**;  **begin**  **var** b := MatrRandom(5, 3, 1, 100);  **var** f := OpenWrite('result.txt');    **for var** i := 0 **to** b.RowCount-1 **do**  **begin**  **for var** j := 0 **to** b.ColCount-1 **do**  Write(f, b[i, j]:4);  Writeln(f)  **end**;    **var** c := Arr(3.42, 11.2, 0.4, 6.23, 15.64);  **var** m := 2.6e-4;  f.Writeln(MaxRowProduct(b));  f.Writeln(get\_k(c, m, MaxRowProduct(b)));  f.Close  **end**. |
| **3** | |
| **function** SumOfAverage(a: **array** [,] **of** integer): real;  **begin**  result := 0.0;  **for var** i := 0 **to** a.RowCount-1 **do**  result += a.Row(i).Average  **end**;  **function** get\_z(x: **array of** integer; sa: real; b: real): **array of** real;  **begin**  result := ArrFill(x.Length, 0.0);  **var** s := 0.0;  **for var** i := 0 **to** x.High **do**  s += x[i] + b;  **for var** i := 0 **to** x.High **do**  result[i] := sqrt(x[i]) / b + sa \* sqrt(s)  **end**; | **begin**  **var** x := Arr(10, 20, 30, 40, 50);  **var** b := 0.294;  **var** f := OpenWrite('reesult.txt');  **var** a := MatrRandom(3, 4, 1, 9);    **for var** i := 0 **to** a.RowCount-1 **do**  **begin**  **for var** j := 0 **to** a.ColCount-1 **do**  Write(f, a[i, j]:4);  WriteLn(f)  **end**;    **var** sa := SumOfAverage(a);  f.Writeln(sa);  **var** z := get\_z(x, sa, b);  **for var** i := 0 **to** z.High **do**  f.Writeln(z[i], ' ');  f.Close  **end**. |