```
> restart
> currentdir("/home/matejcmatej/Documents/maple"):
> with(LinearAlgebra):
```

1)

```
1   f := fopen("soucty.txt", WRITE): # otevru soubor
2   for i from 1 to 100 by 1 do
3           fprintf(f, "%d \n",( i+i-1)):
4           od:
5   fclose(f):
```

2)

```
> soustava := ImportMatrix("soustava.xlsx"): #nactu soustavu
> rside := soustava[..,ColumnDimension(soustava)]: # definuju
  pravou stranu
> lside := soustava[.., 1..ColumnDimension(soustava)-1]:
> vysledek := LinearSolve(lside, rside): #vysledny vektor
> vysledek := convert(vysledek, Matrix):
> ExportMatrix("vektor.txt", vysledek):
```

3)

```
1   data := ImportMatrix("teploty_prosinec.csv" ):
2   first_row := data[1,..]:
3   second_row := data[2,..]:
4   pr21 := [seq([i, first_row[i]], i = 1..numelems (first_row))]:
5   pr22 := [seq([i, second_row [i]], i = 1..numelems (second_row ))]:
```

```
> pros21 := plot([pr21, pr22], color=["red", "blue"], thickness=2,
  legend=["Prosinec 2021", "Prosinec 2022"], labels=["den", "°C"],
  scaling = unconstrained)
```

Prosinec 2021 ——— Prosinec 2022
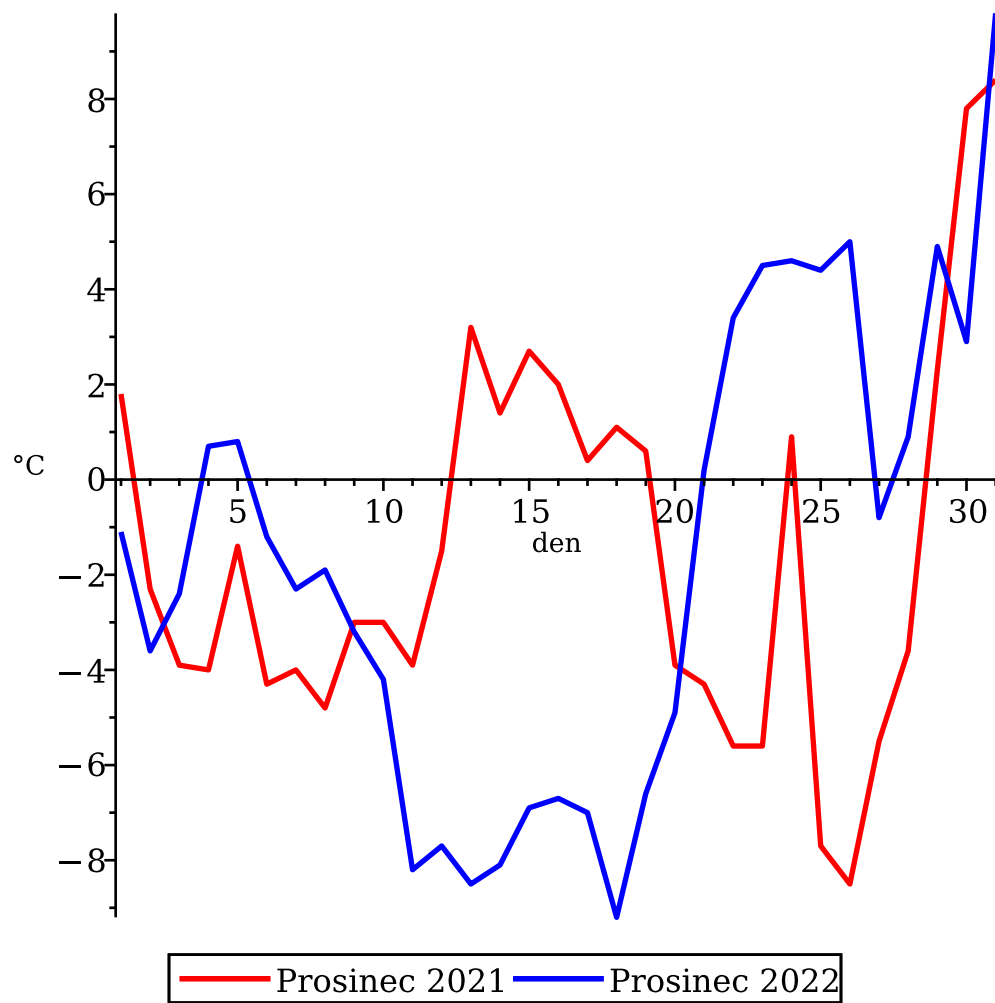
4)

```
1   f := fopen("cisla.txt", READ):
2   soucet := 0:
3   iterace := 0:
4   while not feof(f) do
5           soucet := soucet + fscanf(f, "%d."):
6           iterace := iterace + 1:
7           #print(soucet);
8           #print(iterace); ----> pro debug
9           od:
10  fclose(f):
```

$$[8976]$$
$$1$$
$$[10210]$$
$$2$$
$$[15642]$$
$$3$$
$$[15665]$$
$$4$$
$$[15667]$$
$$5$$

[36631]
44
[37288]
45
[37630]
46
[38843]
47
[39277]
48
[39732]
49
[39798]
50
[39852]
51
[46706]
52
[47091]
53
[47356]
54
[49590]
55
[49911]
56
[50561]
57
[50566]
58
[50581]
59
[65815]
60
[65867]
61
[65902]
62

[71337]

63

[127773]

64

[127776]

65

[128465]

66

[128551]

67

[128596]

68

[130937]

69

[131069]

70

[173491]

71

[173503]

72

[173626]

73

[174859]

74

[179182]

75

[202603]

76

[202626]

77

[203190]

78

[203313]

79

[208880]

80

[217746]

81

$$[218345]$$
$$82$$
$$[218349]$$
$$83$$
$$[218352]$$
$$84$$
$$[223988]$$
$$85$$
$$[224011]$$
$$86$$
$$[224911]$$
$$87$$
$$[233683]$$
$$88$$
$$[235917]$$
$$89$$
$$[240926]$$
$$90$$
$$[241593]$$
$$91$$
$$[241612]$$
$$92$$
$$[241683]$$
$$93$$
$$[242027]$$
$$94$$
$$[242470]$$
$$95$$
$$[242473]$$
$$96$$

(1)

```
> prumer := evalf(soucet/iterace)
```
$$prumer := [2525.760417]$$

(2)