```
restart; with(LinearAlgebra) : with(plots) :
```
Opgave 2.1e:

```
t := [4, 9, 10, 14, 4, 7, 12, 22, 1, 3, 8, 11];
```
$$[4, 9, 10, 14, 4, 7, 12, 22, 1, 3, 8, 11] \quad (1)$$
```
y := [39, 58, 65, 73, 41, 53, 60, 79, 35, 40, 59, 64];
```
$$[39, 58, 65, 73, 41, 53, 60, 79, 35, 40, 59, 64] \quad (2)$$
```
n := 12;
```
$$12 \quad (3)$$
```
a := add(k^2, k = t);
```
$$1281 \quad (4)$$
```
b := add(k, k = t);
```
$$105 \quad (5)$$
```
c := n;
```
$$12 \quad (6)$$
```
d := 4·39 + 9·58 + 10·65 + 14·73 + 4·41 + 7·53 + 12·60 + 22·79 + 1·35 + 3·40 + 8·59 + 11·64;
```
$$6674 \quad (7)$$
```
e := add(k, k = y);
```
$$666 \quad (8)$$

Opgave 2.1f:
Definering af vektor og matrice.

```
M := ⟨⟨1281, 105⟩|⟨105, 12⟩⟩;
```
$$\begin{bmatrix} 1281 & 105 \\ 105 & 12 \end{bmatrix} \quad (9)$$
```
v := ⟨6674, 666⟩;
```
$$\begin{bmatrix} 6674 \\ 666 \end{bmatrix} \quad (10)$$

Så finder vi p og q:

```
LinearSolve(M, v);
```
$$\begin{bmatrix} \frac{3386}{1449} \\ \frac{7256}{207} \end{bmatrix} \quad (11)$$

```
p := 3386/1449;
```
$$\frac{3386}{1449} \quad (12)$$
```
q := 7256/207;
```

$$\frac{7256}{207} \tag{13}$$

Og plotte det:

$punkt := [[4, 39], [9, 58], [10, 65], [14, 73], [4, 41], [7, 53], [12, 60], [22, 77], [1, 35], [3, 40], [8, 59], [11, 64]];$

$$[[4, 39], [9, 58], [10, 65], [14, 73], [4, 41], [7, 53], [12, 60], [22, 77], [1, 35], [3, 40], [8, 59], [11, 64]] \tag{14}$$

$punktPlot := plot(punkt, style = POINT, color = red);$

$$PLOT(\ldots) \tag{15}$$

$tendensLinje := plot(\{p \cdot x + q\}, x = 1 \ldots 22, color = black);$

$$PLOT(\ldots) \tag{16}$$

$display(punktPlot, tendensLinje);$