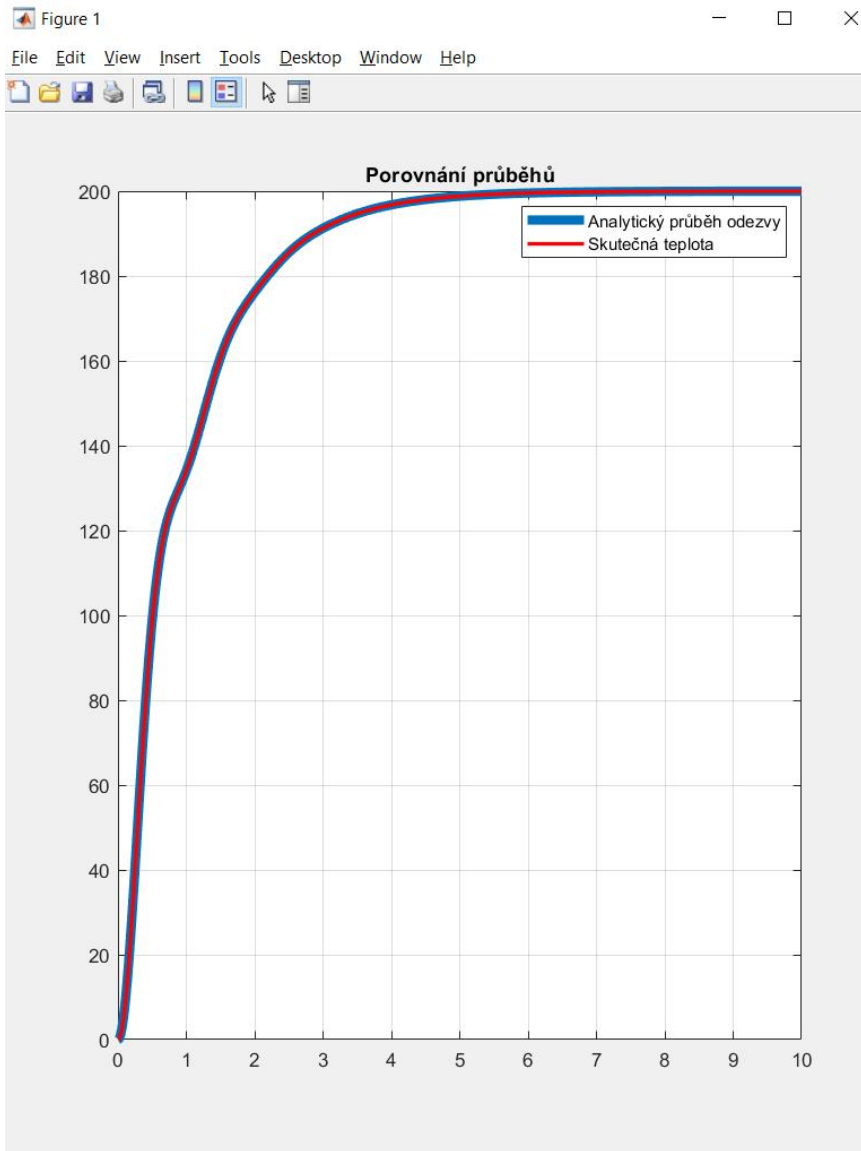


Výpočty v Matlab



Section Break Run and Advance Run to End

Run Step Stop

SECTION RUN

Editor - C:\Users\honza\Desktop\škola\ZAR\2.POKUS\Ukol_1_slushovani\bod_3.m

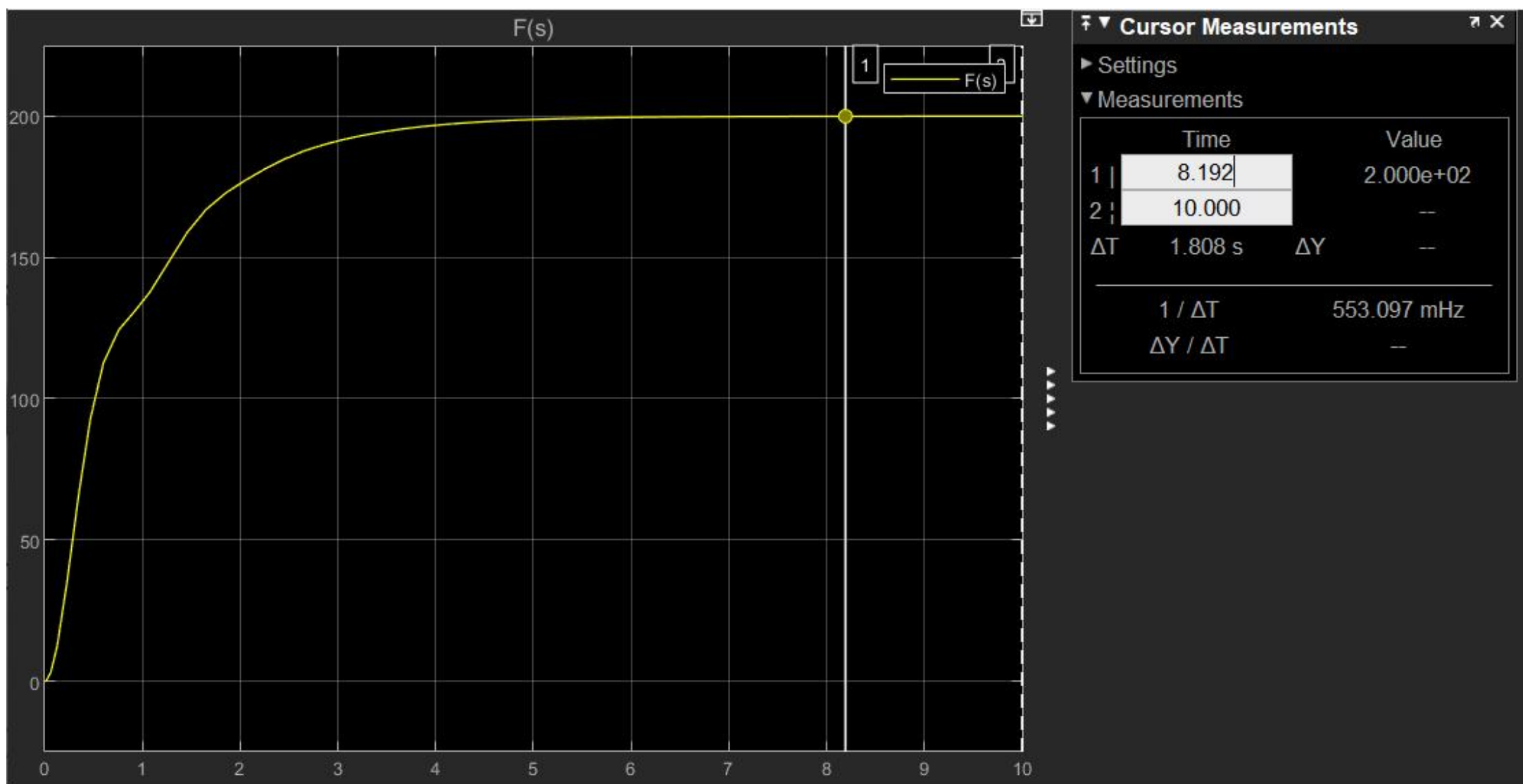
```
1 clear;
2 close all;
3 clc;
4
5 t = 0:0.01:10;
6 syms s;
7
8 Fs = (1044*(2/10 * s + 1))/(25*s^3+145*s^2+1164*s+1044); % předpis obrazového přenosu
9 Us = 200 * 1/s; % u(t) = 200 * 1(t)
10
11 Ys = Fs * Us;
12
13 yt = ilaplace(Ys);
14 pretty(yt)
15
16 yt_1 = 200 - (22760.*exp(-(12*t)/5).*(cos(6*t) + (4618.*sin(6*t))/2845))/949 - (167040.*exp(-t))/949;
17 s = tf('s');
18 F = (1044*(2/10 * s + 1))/(25*s^3+145*s^2+1164*s+1044) * 200;
19 yapr = step(F, t);
20
21 plot(t,yt_1, 'DisplayName', "Analytický průběh odezvy", "LineWidth", 5)
22 hold on;
23 plot(t,yapr, "r", 'DisplayName', "Skutečná teplota", "LineWidth", 2)
24 title("Porovnání průběhů")
25 legend;
```

Command Window

$$200 - \frac{\exp\left(-\frac{12t}{5}\right) \left(\cos(6t) + \frac{\sin(6t) 4618}{2845} \right) 22760}{949} - \frac{167040 \exp(-t)}{949}$$

fx >>

Maximální teplota



Porovnání průběhů

