Cap. I Ecuatii diferentiale de ordinul I (ed)

Notiuni introductive

1. Pe multimea $\mathbb{R}$ se considera ecuatia cu mai multe functii necunoscute:

$$\begin{cases} x'(t)=y(t) \\ y'(t)=x(t) \end{cases}$$

Sa se arate ca functiile $x(t)=\sin t$, $y(t)=\cos t$ sunt solutii ale sistemului de ecuatii de mai sus. Sa se scrie ecuatia de ordinul doi de forma $x''=f(t,x,x')$ cu mai multe necunoscute.

2. Ecuatiile pot fi cu o singura ecuatie sau cu mai multe ecuatii.

Ex. modelare: Se consideraza ecuatia:

$$x(t)+x(t-1)=t, \quad t\in[0,2]$$

unde $x(t)$ este o functie necunoscuta. Sa se determine $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

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Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

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Se cere $x(t)$ pentru $t\in[0,2]$.

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Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

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Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)+\int_{t-1}^{t}x(s)\,dA(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)+\int_{t-1}^{t}x(s)\,dA(s)+\int_{t-1}^{t}x(s)\,dB(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)+\int_{t-1}^{t}x(s)\,dA(s)+\int_{t-1}^{t}x(s)\,dB(s)+\int_{t-1}^{t}x(s)\,dC(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)+\int_{t-1}^{t}x(s)\,dA(s)+\int_{t-1}^{t}x(s)\,dB(s)+\int_{t-1}^{t}x(s)\,dC(s)+\int_{t-1}^{t}x(s)\,dD(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)+\int_{t-1}^{t}x(s)\,dA(s)+\int_{t-1}^{t}x(s)\,dB(s)+\int_{t-1}^{t}x(s)\,dC(s)+\int_{t-1}^{t}x(s)\,dD(s)+\int_{t-1}^{t}x(s)\,dE(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)+\int_{t-1}^{t}x(s)\,dA(s)+\int_{t-1}^{t}x(s)\,dB(s)+\int_{t-1}^{t}x(s)\,dC(s)+\int_{t-1}^{t}x(s)\,dD(s)+\int_{t-1}^{t}x(s)\,dE(s)+\int_{t-1}^{t}x(s)\,dF(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)+\int_{t-1}^{t}x(s)\,dA(s)+\int_{t-1}^{t}x(s)\,dB(s)+\int_{t-1}^{t}x(s)\,dC(s)+\int_{t-1}^{t}x(s)\,dD(s)+\int_{t-1}^{t}x(s)\,dE(s)+\int_{t-1}^{t}x(s)\,dF(s)+\int_{t-1}^{t}x(s)\,dG(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)+\int_{t-1}^{t}x(s)\,dA(s)+\int_{t-1}^{t}x(s)\,dB(s)+\int_{t-1}^{t}x(s)\,dC(s)+\int_{t-1}^{t}x(s)\,dD(s)+\int_{t-1}^{t}x(s)\,dE(s)+\int_{t-1}^{t}x(s)\,dF(s)+\int_{t-1}^{t}x(s)\,dG(s)+\int_{t-1}^{t}x(s)\,dH(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)+\int_{t-1}^{t}x(s)\,dA(s)+\int_{t-1}^{t}x(s)\,dB(s)+\int_{t-1}^{t}x(s)\,dC(s)+\int_{t-1}^{t}x(s)\,dD(s)+\int_{t-1}^{t}x(s)\,dE(s)+\int_{t-1}^{t}x(s)\,dF(s)+\int_{t-1}^{t}x(s)\,dG(s)+\int_{t-1}^{t}x(s)\,dH(s)+\int_{t-1}^{t}x(s)\,dI(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)+\int_{t-1}^{t}x(s)\,dA(s)+\int_{t-1}^{t}x(s)\,dB(s)+\int_{t-1}^{t}x(s)\,dC(s)+\int_{t-1}^{t}x(s)\,dD(s)+\int_{t-1}^{t}x(s)\,dE(s)+\int_{t-1}^{t}x(s)\,dF(s)+\int_{t-1}^{t}x(s)\,dG(s)+\int_{t-1}^{t}x(s)\,dH(s)+\int_{t-1}^{t}x(s)\,dI(s)+\int_{t-1}^{t}x(s)\,dJ(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)+\int_{t-1}^{t}x(s)\,dA(s)+\int_{t-1}^{t}x(s)\,dB(s)+\int_{t-1}^{t}x(s)\,dC(s)+\int_{t-1}^{t}x(s)\,dD(s)+\int_{t-1}^{t}x(s)\,dE(s)+\int_{t-1}^{t}x(s)\,dF(s)+\int_{t-1}^{t}x(s)\,dG(s)+\int_{t-1}^{t}x(s)\,dH(s)+\int_{t-1}^{t}x(s)\,dI(s)+\int_{t-1}^{t}x(s)\,dJ(s)+\int_{t-1}^{t}x(s)\,dK(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)+\int_{t-1}^{t}x(s)\,dA(s)+\int_{t-1}^{t}x(s)\,dB(s)+\int_{t-1}^{t}x(s)\,dC(s)+\int_{t-1}^{t}x(s)\,dD(s)+\int_{t-1}^{t}x(s)\,dE(s)+\int_{t-1}^{t}x(s)\,dF(s)+\int_{t-1}^{t}x(s)\,dG(s)+\int_{t-1}^{t}x(s)\,dH(s)+\int_{t-1}^{t}x(s)\,dI(s)+\int_{t-1}^{t}x(s)\,dJ(s)+\int_{t-1}^{t}x(s)\,dK(s)+\int_{t-1}^{t}x(s)\,dL(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)+\int_{t-1}^{t}x(s)\,dA(s)+\int_{t-1}^{t}x(s)\,dB(s)+\int_{t-1}^{t}x(s)\,dC(s)+\int_{t-1}^{t}x(s)\,dD(s)+\int_{t-1}^{t}x(s)\,dE(s)+\int_{t-1}^{t}x(s)\,dF(s)+\int_{t-1}^{t}x(s)\,dG(s)+\int_{t-1}^{t}x(s)\,dH(s)+\int_{t-1}^{t}x(s)\,dI(s)+\int_{t-1}^{t}x(s)\,dJ(s)+\int_{t-1}^{t}x(s)\,dK(s)+\int_{t-1}^{t}x(s)\,dL(s)+\int_{t-1}^{t}x(s)\,dM(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

$$x'(t)=x(t)+x(t-1)+\int_{t-1}^{t}x(s)\,ds+\int_{t-1}^{t}x(s)\,dW(s)+\int_{t-1}^{t}x(s)\,dN(s)+\int_{t-1}^{t}x(s)\,dP(s)+\int_{t-1}^{t}x(s)\,dQ(s)+\int_{t-1}^{t}x(s)\,dR(s)+\int_{t-1}^{t}x(s)\,dS(s)+\int_{t-1}^{t}x(s)\,dT(s)+\int_{t-1}^{t}x(s)\,dU(s)+\int_{t-1}^{t}x(s)\,dV(s)+\int_{t-1}^{t}x(s)\,dX(s)+\int_{t-1}^{t}x(s)\,dY(s)+\int_{t-1}^{t}x(s)\,dZ(s)+\int_{t-1}^{t}x(s)\,dA(s)+\int_{t-1}^{t}x(s)\,dB(s)+\int_{t-1}^{t}x(s)\,dC(s)+\int_{t-1}^{t}x(s)\,dD(s)+\int_{t-1}^{t}x(s)\,dE(s)+\int_{t-1}^{t}x(s)\,dF(s)+\int_{t-1}^{t}x(s)\,dG(s)+\int_{t-1}^{t}x(s)\,dH(s)+\int_{t-1}^{t}x(s)\,dI(s)+\int_{t-1}^{t}x(s)\,dJ(s)+\int_{t-1}^{t}x(s)\,dK(s)+\int_{t-1}^{t}x(s)\,dL(s)+\int_{t-1}^{t}x(s)\,dM(s)+\int_{t-1}^{t}x(s)\,dN(s)$$

Se cere $x(t)$ pentru $t\in[0,2]$.

Ex. Se consideraza ecuatia:

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