```
(*
Scrieti un program care sa ne realizeze interpolarea Hermite
 pentru o curba data parametric, folosind intervalul [0,1]
*)

(*
    f[x] = ∛x  , pe acelasi interval [-2,2]
     !!!! probleme in 0 !!!!
*)

T = {0, 1};

n = Length[T];

For[i = 1, i ≤ n, i++,
 a = 1;
 For[j = 1, j ≤ n, j++,
  If[j ≠ i, a = a * (t - T[[j]])/(T[[i]] - T[[j]])]];
 L[i, t_] = a]

For[i = 1, i ≤ n, i++,
 H[i, t_] = Simplify[(1 - 2 D[L[i, t], t] (t - T[[i]])) L[i, t]^2];
 Hb[i, t_] = Simplify[(t - T[[i]]) L[i, t]^2];
]

For[i = 1, i ≤ n, i++,
 Print[H[i, t]];
 Print[Hb[i, t]];
]
```

$(-1+t)^2\,(1+2\,t)$

$(-1+t)^2\,t$

$-t^2\,(-3+2\,t)$

$(-1+t)\,t^2$

```
c[t_] := {t + 0.008, ∛(t + 0.008)};

v[t_] = D[c[t], t];

For[i = 1, i <= Length[T], i++,
 A[i] = c[T[[i]]];
 V[i] = v[T[[i]]];
]

L[t_] = Simplify[∑_{i=1}^{n} (L[i, t] A[i])];

Lg = ParametricPlot[L[t], {t, 0, 1}, PlotStyle → {Thickness[0.01], Red}];

curba = ParametricPlot[c[t], {t, 0, 1}, PlotStyle → Black];

PA = Graphics[{Red, PointSize[Large], Point[c[T[[1]]]]}];
PB = Graphics[{Red, PointSize[Large], Point[c[T[[2]]]]}];

H[t_] = Simplify[∑_{i=1}^{n} (H[i, t] A[i] + Hb[i, t] V[i])];
```

```
Hg = ParametricPlot[H[t], {t, 0, 1}, PlotStyle → {Thickness[0.01], Orange}];

Show[Hg, Lg, curba, PA, PB]
```