SAMPLE OUTPUT FROM 'polyinterp'

> res1 := polyinterp([[0,1], [1,6], [2,4], [3,0]],'x');

$$res1 := \frac{5}{6} x^3 - 6 x^2 + \frac{61}{6} x + 1$$

> [subs(x=0,res1), subs(x=1,res1),subs(x=2,res1), subs(x=3,res1)];

$$[\,1, 6, 4, 0\,]$$

> res2:= polyinterp([[0,1], [1,6], [2,4], [3,0]],f(x));

Error, (in polyinterp) second argument must be a name

> res3 := polyinterp([[-h , f[-1]], [0 , f[0]], [h , f[1]]] , 'x');

$$res3 := \frac{1}{2} \frac{f_{-1} x^2}{h^2} - \frac{1}{2} \frac{f_{-1} x}{h} - \frac{f_0 x^2}{h^2} + f_0 + \frac{1}{2} \frac{f_1 x^2}{h^2} + \frac{1}{2} \frac{f_1 x}{h}$$

> res3c := collect(res3,{f[-1],f[0],f[1]});

$$res3c := \left(\frac{1}{2} \frac{x^2}{h^2} \quad \frac{1}{2} \frac{x}{h} \right) f_{-1} + \left(\frac{x^2}{h^2} \quad 1 \right) f_0 + \left(\frac{1}{2} \frac{x^2}{h^2} \quad \frac{1}{2} \frac{x}{h} \right) f_1$$