

```
In[45]= ClearAll["Global`*"]
```

```
In[46]= dades = {{3.4, 9.59}, {7.1, 5.29}, {16.1, 3.63},  
              {20, 3.42}, {23.1, 3.46}, {34.4, 3.06}, {40, 3.25}, {44.7, 3.31},  
              {65.9, 3.5}, {78.9, 3.86}, {96.8, 4.24}, {115.4, 4.62}, {120, 4.67}}
```

```
Out[46]= {{3.4, 9.59}, {7.1, 5.29}, {16.1, 3.63}, {20, 3.42},  
          {23.1, 3.46}, {34.4, 3.06}, {40, 3.25}, {44.7, 3.31}, {65.9, 3.5},  
          {78.9, 3.86}, {96.8, 4.24}, {115.4, 4.62}, {120, 4.67}}
```

```
In[47]= sol = NonlinearModelFit[dades, a * x + b / x + d, {{a, 1}, {b, 1}, {d, 12.5}}, x]
```

```
Out[47]= FittedModel[
$$1.56807 + \frac{26.7279}{x} + 0.0243586x$$
]
```

```
In[49]= sol["ParameterConfidenceIntervalTable"]
```

	Estimate	Standard Error	Confidence Interval
Out[49]= a	0.0243586	0.000966832	{0.0222043, 0.0265128}
b	26.7279	0.487412	{25.6418, 27.8139}
d	1.56807	0.075572	{1.39969, 1.73646}

```
In[50]= sol2 = sol["MeanPredictionConfidenceIntervalTable"]
```

	Observed	Predicted	Standard Error	Confidence Interval
Out[50]=	9.59	9.51203	0.0994945	{9.29034, 9.73372}
	5.29	5.50551	0.0472484	{5.40023, 5.61078}
	3.63	3.62036	0.0436034	{3.52321, 3.71752}
	3.42	3.39164	0.0434879	{3.29474, 3.48854}
	3.46	3.28781	0.0429807	{3.19204, 3.38358}
	3.06	3.18298	0.0395234	{3.09492, 3.27105}
	3.25	3.21061	0.0375612	{3.12692, 3.29431}
	3.31	3.25484	0.0360448	{3.17453, 3.33515}
	3.5	3.57889	0.0334148	{3.50443, 3.65334}
	3.86	3.82872	0.0365445	{3.7473, 3.91015}
	4.24	4.2021	0.0458503	{4.09994, 4.30426}
	4.62	4.61067	0.059128	{4.47892, 4.74241}
	4.67	4.71384	0.0627427	{4.57404, 4.85364}

■ Grficació

```
In[53]= observed = {}; predicted = {}; lower = {}; upper = {};  
For[i = 2, i <= Length[sol2[[1, 1]]], i++,  
  observed = AppendTo[observed, {dades[[i - 1, 1]], sol2[[1, 1, i, 1]]}];  
  predicted = AppendTo[predicted, {dades[[i - 1, 1]], sol2[[1, 1, i, 2]]}];  
  lower = AppendTo[lower, {dades[[i - 1, 1]], sol2[[1, 1, i, 4, 1]]}];  
  upper = AppendTo[upper, {dades[[i - 1, 1]], sol2[[1, 1, i, 4, 2]]}];];  
Needs["PlotLegends`"];
```

```
In[65]:= ListPlot[{observed, predicted, lower, upper}, Joined -> {False, True, True, True},  
PlotLegend -> {"observed", "predicted", "lower", "upper"},  
LegendSize -> 0.4, LegendPosition -> {0.3, 0.1}, LegendShadow -> None,  
PlotMarkers -> {"◊", "", "", ""}, PlotRange -> {2, 8}, PlotStyle ->  
{RGBColor[0, 0, 1], RGBColor[1, 0, 0], RGBColor[0, 0, 1], RGBColor[0, 0, 1]},  
Frame -> True, FrameLabel -> {"X (units)", ""}]
```

