

Scatter plots

Created using Maple 14.01

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```
> restart;
with(StringTools) :
FormatTime("%m-%d-%Y, %H:%M");
"08-04-2012, 20:47"
```

(1)

Scatter plots are useful for plotting experimental data. In Maple, you have to load the *Statistics* package to generate a scatter plot.

```
> with(Statistics) :
```

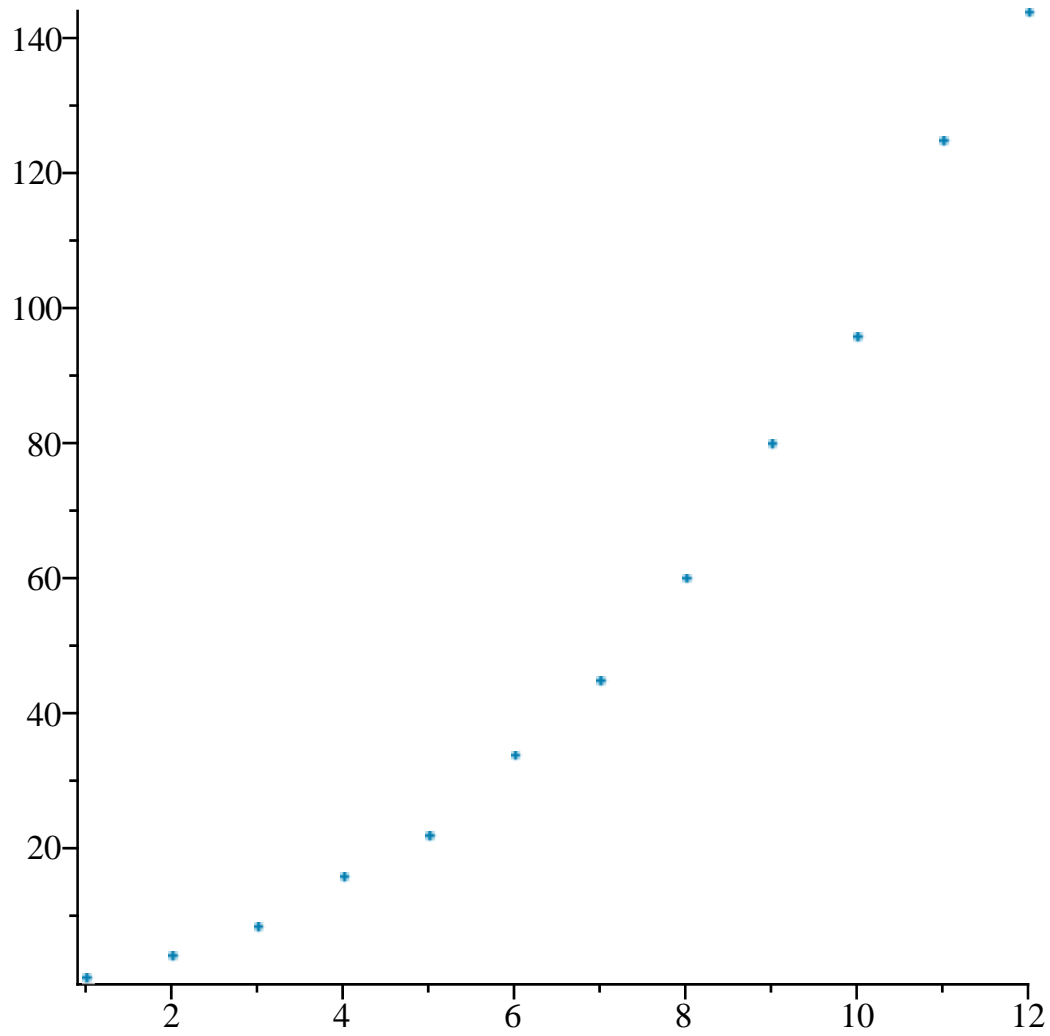
Here's some sample data.

```
> t := [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12];
y := [1.02, 4.3, 8.6, 16, 22, 34, 45, 60.2, 80.1, 96, 125, 144];
dy := [.3, .3, .5, 2, 2, 2, 4, 4, 6, 10, 20, 20];
nops(t);
nops(y);
nops(dy);
t := [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]
y := [1.02, 4.3, 8.6, 16, 22, 34, 45, 60.2, 80.1, 96, 125, 144]
dy := [0.3, 0.3, 0.5, 2, 2, 2, 4, 4, 6, 10, 20, 20]
12
12
12
```

(2)

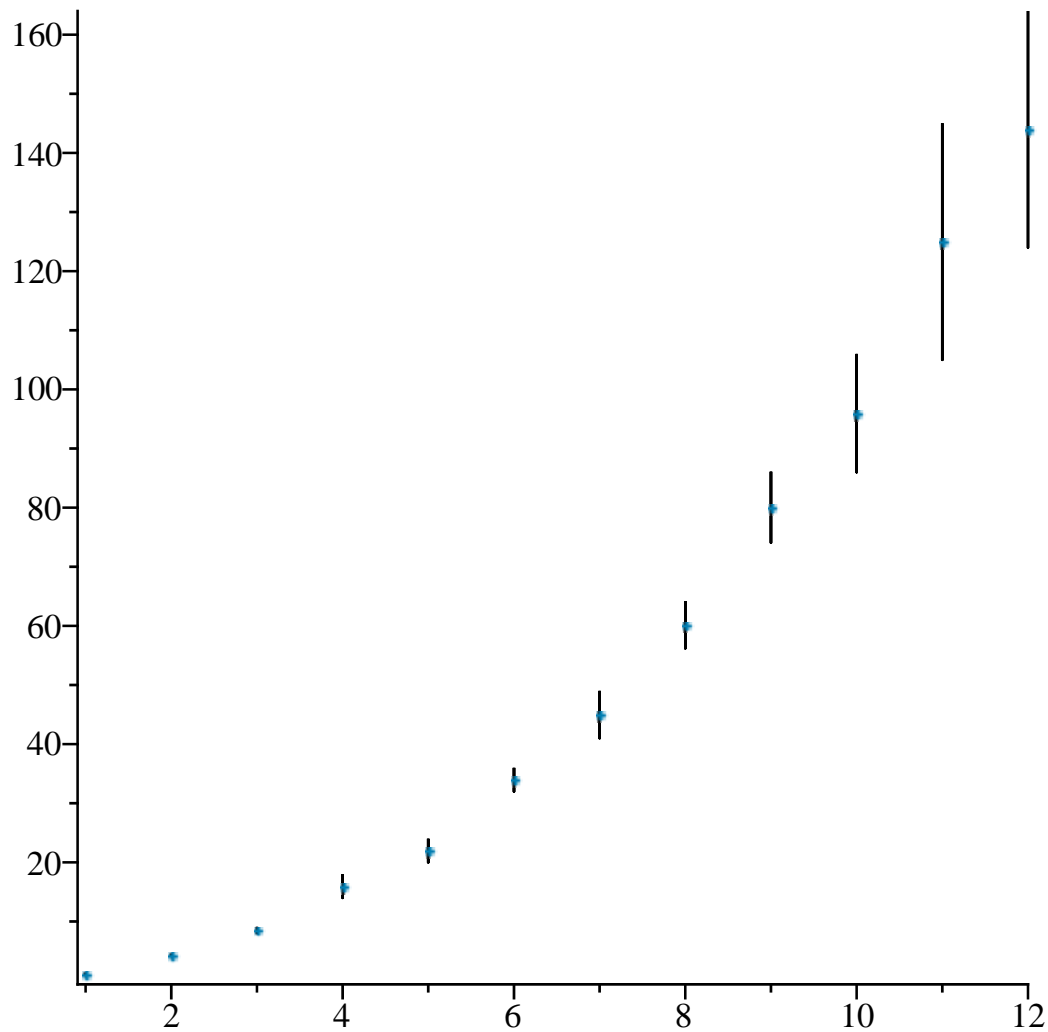
Here's a scatter plot

```
> ScatterPlot(t, y);
```



Scatter plot with y-error bars

```
> ScatterPlot(t, y, yerrors = dy);
```



The same formatting options discussed in "plotting a function.mw" are available for *ScatterPlot*.

```
> ScatterPlot(t, y, errors = dy, axes = boxed, view = [0 .. 14, 0 .. 175], labels = [typeset(
  "time (s)", typeset("position (m)"), labeldirections = ["horizontal", "vertical"], symbol
  = circle, symbolsize = 20, thickness = 2, tickmarks = [8, 8], colour = blue, axesfont
  = [Times, 12], labelfont = [Times, 14], axis = [gridlines = [thickness = 2]]);
```

