with(*plots*)

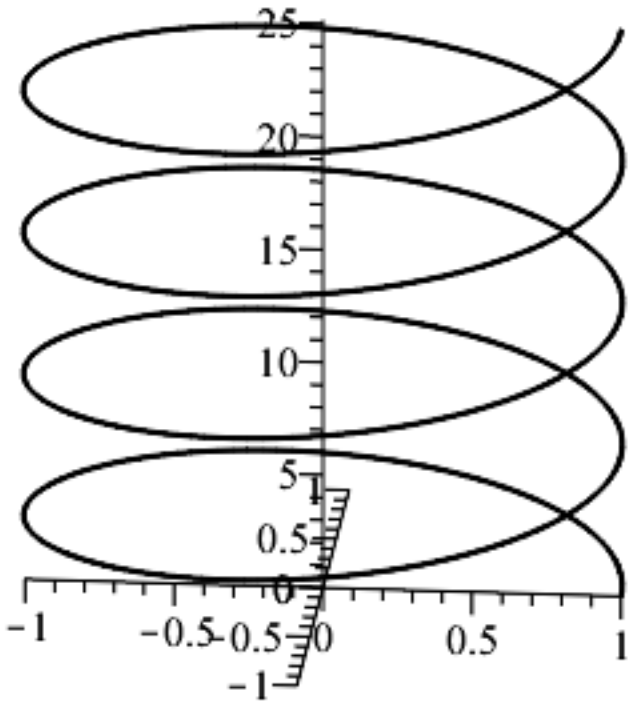
[*animate*, *animate3d*, *animatecurve*, *arrow*, *changecoords*, *complexplot*, *complexplot3d*, *conformal*, *conformal3d*, *contourplot*, *contourplot3d*, *coordplot*, *coordplot3d*, *densityplot*, *display*, *dualaxisplot*, *fieldplot*, *fieldplot3d*, *gradplot*, *gradplot3d*, *implicitplot*, *implicitplot3d*, *inequal*, *interactive*, *interactiveparams*, *intersectplot*, *listcontplot*, *listcontplot3d*, *listdensityplot*, *listplot*, *listplot3d*, *loglogplot*, *logplot*, *matrixplot*, *multiple*, *odeplot*, *pareto*, *plotcompare*, *pointplot*, *pointplot3d*, *polarplot*, *polygonplot*, *polygonplot3d*, *polyhedra_supported*, *polyhedraplot*, *rootlocus*, *semilogplot*, *setcolors*, *setoptions*, *setoptions3d*, *shadebetween*, *spacecurve*, *sparsematrixplot*, *surfdata*, *textplot*, *textplot3d*, *tubeplot*] **(1)**

Use a mouse-click to get the cursor on the *?spacecurve* line, below, and hit enter.

?spacecurve

The online manual page will come up, and it'll explain use of the command. You could create a Maple document that just had all your "?"s in one document, as a quick-reference on the syntax of any command you used, before.

spacecurve([cos(*t*), sin(*t*), *t*], *t* = 0 ..8·Pi, *numpoints* = 500, *thickness* = 2, *color* = *black*)

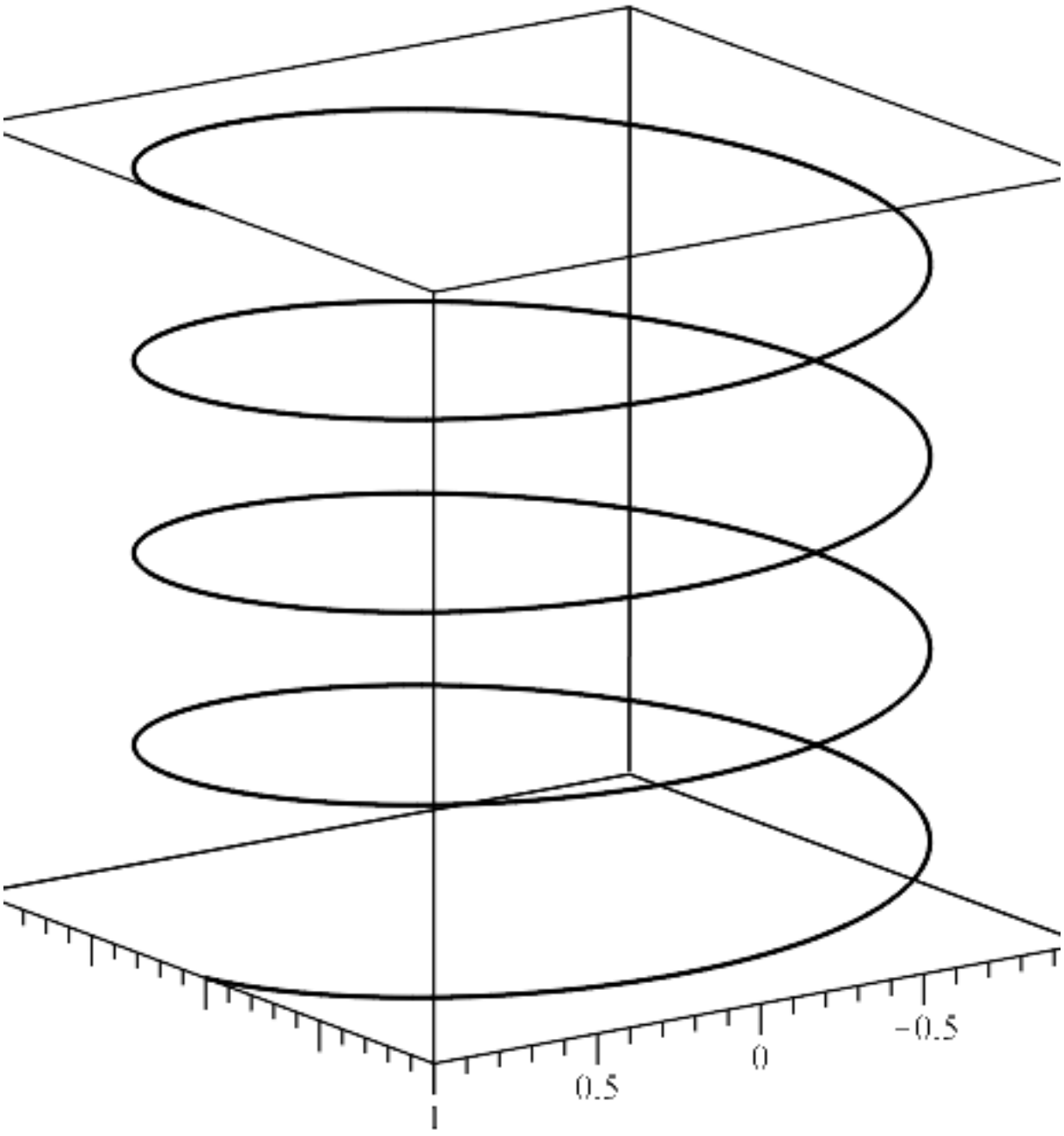


You can get by with just the "*t* =0..8*Pi" argument, and add the other 3, like I did. If you spend a lot of time in Maple Land, you'll pore over the "?plotoptions" pages, a lot, to tweak the displays.

A "handy" way to customize the display is to right-click and explore all the options that pop up. I think the option is "axes=normal" to do it inside the command, but I think you can just follow your pointer to the various options, starting with a right-click over the image.

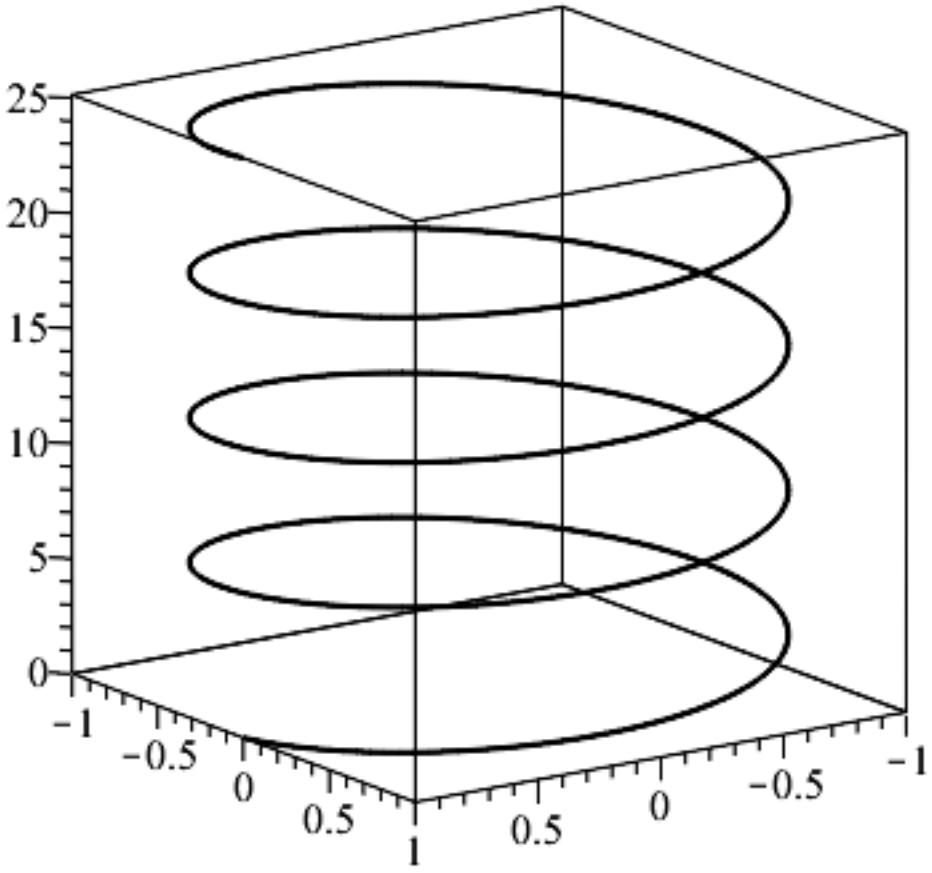
Notice that I enclosed the list of 3 functions in square brackets?

$$\mathit{spacecurve}([\cos(t), \sin(t), t], t = 0..8 \cdot \mathrm{Pi}, \mathit{numpoints} = 500, \mathit{thickness} = 2, \mathit{color} = \mathit{black}, \mathit{axes} = \text{"boxed"})$$



Ahh, *there* was a good guess on the argument to fit the pic inside a box, and display the box. "boxed" is one of the options for the axes in the pop-up menus, so it's pretty good about teaching you how to write the commands, if you're interested in that stuff.

$$spacecurve(\langle \cos(t), \sin(t), t \rangle, t = 0..8 \cdot \mathrm{Pi}, numpoints = 500, thickness = 2, color = black)$$



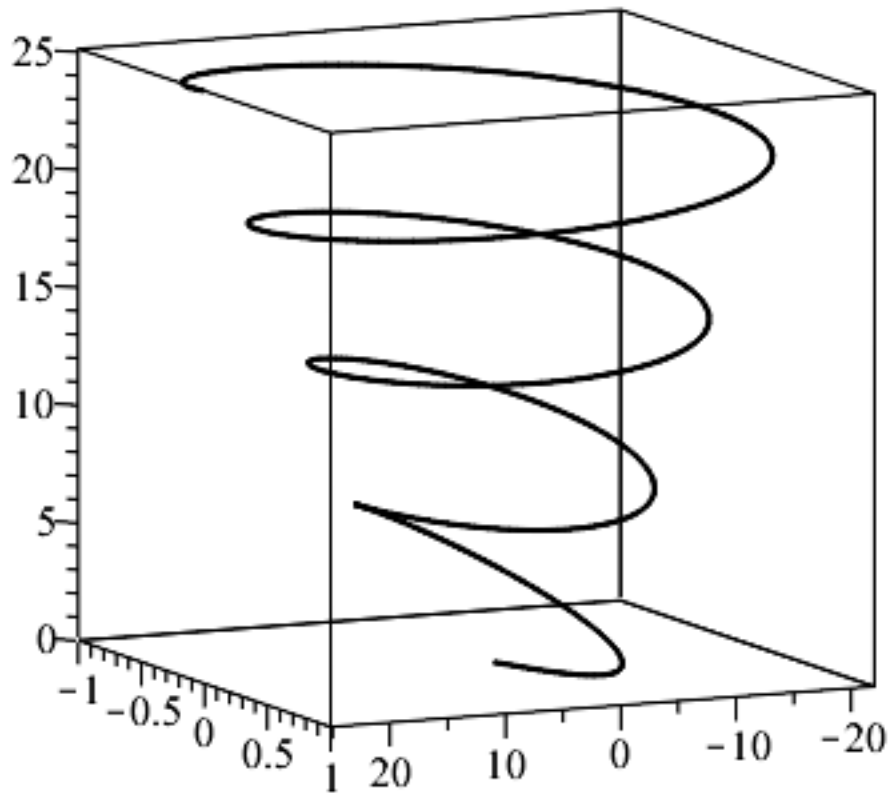
If you look at that last command, above, you see that I changed the delimeters to < > from the square brackets [ ] that I used in the previous examples. It appears that MAT 203 notation can be followed.

Sorry for the following blather. You may SAFELY SKIP NEXT PARAGRAPH.

I learned with the square brackets, myself, because that was how the early, lisp-based CAS's were set up. Just no fuss with telling it how many places to reserve. As long as the multiplications made sense, it would perform them, flawlessly (Macsyma on a Sun 3/60. State-of-the-art in its day, (mid-'80s) for the common man.)

NOW BACK TO THE EXPOSITION:

$$spacecurve([t\cdot cos(t), \sin(t), t], t = 0..8\cdot \mathrm{Pi}, numpoints = 500, thickness = 2, color = black, axes = "boxed")$$


25
20
15
10
5
0
-1
-0.5
0
0.5
1
20
10
0
-10
-20