Math 322 Homework 7 Sage advice

A couple of problems in HW 7 require putting images in your LaTeX file. If you have an image file (png, jpg, pdf, etc.) you can include it like so:

```
\begin{center}
  \includegraphics[height=2in]{myfile.png}
\end{center}
```

The file `myfile.png` could just be a phone-image of a drawing you made by hand.

Here is one way to create an image file using Sage. Go to Sage Cell Server, https://sagecell.sagemath.org/, type in the following, and hit Shift-Enter or the Evaluate button:

```
t,x,y = var('t,x,y')
plot_vector_field((x,-y),(x,-2,2),(y,-2,2))
```

If the vector field plot looks good, you could save it in a variable `p`, and then combine it with the plot of a solution curve like so:

```
t,x,y = var('t,x,y')
p = plot_vector_field((x,-y),(x,-2,2),(y,-2,2))
sol = parametric_plot((exp(t),exp(-t)),(t,-0.5,0.5),color='blue')
p + sol
```

Finally, if that looks good, you can produce an image file:

```
t,x,y = var('t,x,y')
p = plot_vector_field((x,-y),(x,-2,2),(y,-2,2))
sol = parametric_plot((exp(t),exp(-t)),(t,-0.5,0.5),color='blue')
(p + sol).save('myplot.png')
```

A link to the image file will appear.