1. Create a Cocalc/Sage Cloud account.
   (a) Start the Chrome browser.
   (b) Go to http://cocalc.com
   (c) You should see an existing Project for our class. Click on that.
   (d) Click “New”, then “Worksheets”, then call it c02.

   The multiplication operator in Sage is “*”. The most common error in Sage is forgetting to put in a “*” when multiplying.

2. Find $900(1 + .06(90/365))$.

3. Find $25^2$ and $25^{10}$.

   Sage uses only curved parentheses for grouping. The common square parentheses are reserved in Sage for lists.

4. Find $550 \left[1 + (1.05)^{-30}\right]_{0.05}$

   Sage returns exact expressions (no rounding error) when possible.

5. Find an exact expression for $\sqrt{8}$.

   You often have to force Sage to give you a decimal approximation of what you’ve calculated.

6. Use $n(\_)$ to find a decimal approximation for $\sqrt{8}$.

   What can you do for other roots besides $\text{sqrt}$?

7. Find $\sqrt[6]{50}$.

8. Evaluate “pi”. Then use $n(\_)$ to find a decimal approximation for $\pi$.

9. Evaluate “e”. Find a 6-digit approximation for $e$.
10. Find a 6-digit approximation for $e^3$

11. Find log 10

12. Find log$_{10}$ 10.

13. Find sin $\frac{\pi}{3}$

14. Find tan $\frac{\pi}{2}$.

15. Find arcsin $\frac{1}{2}$

Sage doesn’t understand degrees–only radians. What can you do here?

16. Find sin $47^\circ$, and a decimal approximation.

17. Type in “i” and evaluate.

18. Find $i^3$ by hand, then check it with Sage.

plot is Sage’s powerful and flexible command for plotting functions of a single variable.

19. Sketch the graph of $x^3$ on the interval $(-2, 2)$.

20. Sketch the graph of $|x - 1|$ on a “nice” interval.

21. Sketch $\cos x$.

22. Sketch $\cos t$. What happens? What do you think the difference is?