

**Math 314 - Spring 2020**  
**CoCalc Assignment 0**

Due January 29th

*There are two kinds of cryptography in this world: cryptography that will stop your kid sister from reading your files, and cryptography that will stop major governments from reading your files.*

— Bruce Schneier

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1. INSTRUCTIONS

1. Use the email you received to sign up for a CoCalc account (or sign in if you already have one). (Note: you will need to pay the \$14 fee to use SageMathCloud for the semester by February 10th, however it is free for the first two weeks. SageMathCloud is free to use on your own, but this will allow us to use dedicated servers during the semester that don't get turned off when the system is too busy.)
2. After you create an account you will already be enrolled in the course. Inside the course project you will find a CoCalc Assignment 0 folder with the files for this mission.
3. Open up CoCalc0Sage.sagews and do the four problems there.
4. Open up CoCalc0.tex. Change the author to your name and the title to "Latex Examples".
5. Any time you type a mathematical expression in latex you must surround it in dollar signs. On a new line put the code:

`$3^2+\sqrt{4}=11$`

6. For a more complicated expression you can put the math between double dollar signs and it will get displayed. On a new line put the code:

`$$\sum_{i=1}^n 1 = n$$`

7. Type a sentence containing the equation  $7 \times 5 \equiv 9 \pmod{26}$ . Make sure to make the math look right! (Hint: you'll want to use the commands `\times`, `\equiv` and `\pmod{26}`.)
8. Use the command `\frac{a}{b}` to type the equation

$$\sum_{i=1}^n i = \frac{n(n+1)}{2}.$$

9. You don't need to do anything else to turn in the assignment, it will automatically be collected!