

LARSON—MATH 255—HOMEWORK WORKSHEET 09
Problems.

1. Log in to CoCalc.
 - (a) Start the Chrome browser.
 - (b) Go to <https://cocalc.com>
 - (c) Login (**your VCU email address** is probably your username).
 - (d) You should see an existing Project for our class. Click on that.
 - (e) Click “New”, then “Sage Worksheet”, then call it **h09**.

Annotate your work carefully and completely. The more explanation the better!.

If you are stuck, get help, talk to your classmates, try things. At worst, your worksheet should include all your dead ends and **attempts**. (You can’t ever succeed unless you **try**).

The sum of the squares of the first ten natural numbers is,

$$1^2 + 2^2 + \dots + 10^2 = 385.$$

The square of the sum of the first ten natural numbers is,

$$(1 + 2 + \dots + 10)^2 = 55^2 = 3025.$$

Hence the difference between the sum of the squares of the first ten natural numbers and the square of the sum is $3025 - 385 = 2640$.

Find the difference between the sum of the squares of the first one hundred natural numbers and the square of the sum.

Getting your homework recorded

When you are done writing up your nicely annotated code examples...

- (a) Click the Printer-icon button and make a pdf of this worksheet. (If Cocalc hangs, click the *File* button, then Save-and-Download as pdf (via “JupyterLab notebook” is slightly more attractive than than the “Classic” option).
- (b) Send me an email with an informative header like “Math 255—h08 worksheet attached” (so that it will be properly recorded).
- (c) Remember to attach your homework worksheet pdf!