

Stat 404
Lab 10

R:

1. Write a function in R that will calculate x^2+y^2 . Test the function with the arguments $x=5$, and $y=9$.
2. Use the following data for your loop:
Wages=12874000; Retire=1765000; Medical=649000; start=2016; stop=2025;
3. Create a for loop containing statements to calculate the estimated values of Wages, Retire, and Medical.
 - a. Use *start* and *stop* to control the values of the index-variable within your for loop.
 - b. Assume the estimated annual increase shown in the table below:

Variable	Current value	Estimated annual increase
Wages	\$12.874,000	6% = 0.06
Retire	\$1,765,000	1.4% = 0.014
Medical	\$649,000	9.5% = 0.095

An example bit of code to help with the calculations for wages having a 6% yearly increase:

```
Wages=wages*1.06
```

- c. Create another variable called Total.cost that is the sum of the year's Wages, Retire, and Medical values.
 - d. Concatenate (use the `c()` command) the following variables: your index variable (from the loop), Wages, Retire, Medical, Total.cost. Ex: `future.costs=c(index-variable, Wages, Retire, Medical, Total.cost)`
4. Display the dataset in the console. It should look similar to the results from lab9.