Assignment

1. Write a R program to take input from the user (name and age) and display the values.
2. Write a R program to print the numbers from 1 to 100 and print "Fizz" for multiples of 3, print "Buzz" for multiples of 5, and print "FizzBuzz" for multiples of both.
3. Write a R program to create an array with three columns, three rows, and two "tables", taking two vectors as input to the array. Print the array.
4. Write a function that takes 3 numbers a, b, and c as inputs and returns the smallest number of the three
5. Write a function which recursively computes the n'th Fibonacci number.
6. Find all primes smaller than 1000.
7. Print the square root of the numbers from 1 to 1000.
8. Give the R code required to produce this list:

```
$a
[1] 1 2 3 4 5

$b
[1] "a" "b"

$c
     [,1] [,2] [,3]
[1,]    1    3    5
[2,]    2    4    6
```

9. Using the built-in dataset, midwest (make sure tidyverse is loaded!)
   a. Create a column named avg.pop.den which calculates average population density for the entire dataset
   b. Create a column named avg.area which calculates the average area for the entire dataset
   c. Create a column called totadult which calculates the total number of adults in this dataset
   d. Create a new column called tot.minus.white calculating the difference between poptotal and popwhite.
   e. Create a new column called child.to.adult that calculates the ratio of percchildbelowpovert to percadultpovert
   f. Create a new column named ratio.adult which calculates the ratio of adults in this dataset
   g. Create a new column named perc.adult that calculates the percentage of the total population that are adults per county

10. Create a user defined function from the user which will take vector from the user and print its mean
11. Create a user define function which will take Principal, Rate of interest, Duration from the user and calculate Simple Interest and Compound Interest
12. Create a list which has dataframe, matrix & vector and access every element from that list.