

Homework #3

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Question 1

Using For Loops:

Using colMeans()

Question 2

Question 3

```
## How many numbers of the Fibonacci Sequence you want to generate.
fib.length = 30

## Makes a list of 30 elements all set to 0.
Fib.seq = matrix(0, ncol = 1, nrow=fib.length)

## Sets the second term of the matrix to 1.
Fib.seq[2] = 1

## For loop to calculate sum of previous two values.
for (i in 3:fib.length){
  Fib.seq[i] = Fib.seq[i-1] + Fib.seq[i-2]
} # Closes for loop

## Prints out the first 30 terms of the Fibonacci Sequence.
print(Fib.seq)
```

```
##      [,1]
## [1,]    0
## [2,]    1
## [3,]    1
## [4,]    2
## [5,]    3
## [6,]    5
## [7,]    8
## [8,]   13
```

##	[9,]	21
##	[10,]	34
##	[11,]	55
##	[12,]	89
##	[13,]	144
##	[14,]	233
##	[15,]	377
##	[16,]	610
##	[17,]	987
##	[18,]	1597
##	[19,]	2584
##	[20,]	4181
##	[21,]	6765
##	[22,]	10946
##	[23,]	17711
##	[24,]	28657
##	[25,]	46368
##	[26,]	75025
##	[27,]	121393
##	[28,]	196418
##	[29,]	317811
##	[30,]	514229