Test

Kevin Bitinsky

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Summary

This is a test of lexical scoping assignment.

```r
library(matlib)
source("cachematrix.R")
```

Create a random matrix:

```r
set.seed(1)
mat <- matrix(rnorm(9), nrow = 3, ncol = 3)
print(mat)
```

```
##            [,1]       [,2]      [,3]
## [1,] -0.6264538  1.5952808 0.4874291
## [2,]  0.1836433  0.3295078 0.7383247
## [3,] -0.8356286 -0.8204684 0.5757814
```

Use the matrix as input to the cache matrix.

```r
system.time(m <- makeCacheMatrix(mat))
```

```
##    user  system elapsed
##       0       0       0
```

```r
system.time(inv1 <- cacheSolve(m))
```

```
##    user  system elapsed
##       0       0       0
```

```r
print(inv1)
```

```
##             [,1]        [,2]        [,3]
## [1,] -0.50015875  0.82896132 -0.6395669
## [2,]  0.45439113 -0.02930499 -0.3470881
## [3,] -0.07838637  1.16130885  0.3139817
```

Use matlib to calculate inverse matrix

```
system.time(inv2 <- inv(mat))
```

```
##    user  system elapsed
##       0       0       0
```

```
print(inv2)
```

```
##              [,1]        [,2]       [,3]
## [1,] -0.50015875  0.82896132 -0.6395669
## [2,]  0.45439113 -0.02930499 -0.3470881
## [3,] -0.07838637  1.16130885  0.3139817
```

Is it the same output?

```
identical(round(inv1, 3), round(inv2, 3))
```

```
## [1] TRUE
```