HW 3, M362M, Fall 2024

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Problem 1.1

This is where I would explain what I am doing.

a.

```
1/238746238746
## [1] 4.188548e-12
```

You can write an explanation here, too.

b.

```
2^45
## [1] 3.518437e+13
```

e.

```
cos(pi/8)
## [1] 0.9238795
```

Problem 1.2

3.

```
(A = matrix(c(1, 2, -1, 3), nrow = 2, byrow = TRUE))
##      [,1] [,2]
## [1,]    1    2
## [2,]   -1    3
```

Problem 1.3.

2.

```
my_function <- function(x) {
  if (2 < x & x < 3) {
    return(TRUE)
  } else {
    return(FALSE)
  }
}
```

If the problem asked for a plot, you would do it in a "chunk", too (don't worry about the specifics of the commands used below)

```
x = seq(from = 0, to = 12*pi, length = 500)
y = sin(x)
plot(x,y , type = "l", col = "red", lwd = 2, lty = "dashed")
```