```
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output:
  pdf_document: default
  html_document: default
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---Week1

# 1. Write a loop that calculates 12-factorial

factorial<-function (x){
  y<- 1
  for(i in 1:x) {
    y<-y*((1:x)[i])
    print(y)
  }
}
factorial(12)


# 2. Create a numeric vector that contains the
sequence from 20 to 50 by 5.
numvect <-seq(from =20, to =50, by =5 )
numvect


# 3. Run and test quadratic function for (1,2,1),
(1,6,5) and (1,1,1).
quadFunction <- function(a, b, c) {
  numSqrt <- b^2 - 4*a*c
  if(numSqrt > 0) {
    x1 <- (-b+sqrt(b^2 - 4*a*c))/(2*a)
```

```
    x2 <- (-b-sqrt(b^2 - 4*a*c))/(2*a)
    x <- c(x1, x2)
    x
  } else if (numSqrt == 0) {
    x <- -b/(2*a)
    x
  } else {"No results when the number under square
root less than 0."}
}


numeric <- as.character("a","b","c")
a<- (1)
b<- (2)
c<- (1)
quadFunction (1,2,1)
# [1] -1

numeric <- as.character("a","b","c")
a<- (1)
b<- (6)
c<- (5)
quadFunction (1,6,5)
[1] -1 -5

numeric <- as.character("a","b","c")
a<- (1)
b<- (1)
c<- (1)
quadFunction(1,1,1)
 [1] "No results when the number under square root
less than 0.
```