# HW 1

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## 2023-07-14

1. Write a loop that calculates 12-factorial (myFactorial)

```
myFactorial <- 1
for(i in (1:11))
{
  myFactorial <- myFactorial * (i + 1)
}
print(myFactorial)
```

```
## [1] 479001600
```

2. seqV - Show how to create a numeric vector that contains the sequence from 20 to 50 by 5. attached are 2 ways of doing it.

```
seqV <-  as.numeric(c(20,25,30,35,40,45,50))
seqV
```

```
## [1] 20 25 30 35 40 45 50
```

```
mySeqV <- seq(20, 50, 5)
mySeqV
```

```
## [1] 20 25 30 35 40 45 50
```

3. Create the function "quad" that takes a trio of input numbers a, b, and c and solve the quadratic equation. The function should print as output the two solutions. Please run and test your answer for (1,2,1), (1,6,5) and (1,1,1).

y = ax^2 + bx + c

```
quad <- function(a,b,c)
{
  if (b**2 - (4*a*c) >= 0)
  {
  firstNum <- (-b + (b**2 - (4*a*c))^0.5) / (2*a)
  secondNum <- (-b - (b**2 - (4*a*c))^0.5) / (2*a)
  cat(firstNum, secondNum)
  }
  else
```

```
    {
  myString <- "bad data!"
  print ( myString)
  }
}

quad(1,2,1)
```

```
## -1 -1
```

```
quad(1,6,5)
```

```
## -1 -5
```

```
quad(1,1,1)
```

```
## [1] "bad data!"
```

```
``
```