

Vectorized Vs Unvectorized

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```
# Vectorized Operations ----
```

```
x <- rnorm(5)
x
```

```
## [1] -0.73943692 -0.79973258 0.08017235 0.38149793 0.64703645
```

```
# R specific programming loop
```

```
for(i in x){print (i)}
```

```
## [1] -0.7394369
## [1] -0.7997326
## [1] 0.08017235
## [1] 0.3814979
## [1] 0.6470364
```

```
# Conventional programming loop
```

```
for(j in 1:5){print(x[j])}
```

```
## [1] -0.7394369
## [1] -0.7997326
## [1] 0.08017235
## [1] 0.3814979
## [1] 0.6470364
```

```
# 2nd Part ----
```

```
N <- 100
a <- rnorm(N)
b <- rnorm(N)
```

```
# Vectorized approach
```

```
c <- a*b
```

```
# Devectorized approach
```

```
d <- rep(NA,N)
for(i in 1:N){d[i] <- a[i]* b[i]}
```