

```

#non vectorised solution and its system time.
>
> m<- (replicate(10,rnorm(10)))
> dframe1 <-as.data.frame(m)
> system.time(
+ for(i in 1:10){
+   for (j in 1:10){
+     if(j>10){break}
+     dframe1[i,j]<- dframe1[i,j] + sin(30*(pi/180))
+   }
+   if(i>10){break}
+ }
+ )
      user  system elapsed
      0.03   0.00   0.04
>
> #VECTORISED FORM OF THE SOLUTION WITH ITS SYSTEM TIME
> vm<-(replicate(10,rnorm(10)))
> vdframe1<-as.data.frame(vm)
> system.time(
+ vdframe1<-vdframe1 + sin(30*(pi/180))
+ )
      user  system elapsed
       0       0       0
>
> #vectorised form of the solution is faster and the differences in loop execution
> #will be higher when n increases.
>

```