Untitled2

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In [2]:
```
Fx <- function(x) log(x+2) -sin(x)
F1x <- function(x) 1/(x+2) -cos(x)
F2x <- function(x) (1/(x+2))+sin(x)


##Método Newton Generalizado
NewtonMod <- function(x0) {

  x<-x0-(Fx(x0)*F1x(x0)/(F1x(x0)^2-Fx(x0)*F2x(x0)))

  while (abs(x-x0) > 1.e-4) {
    x0 <- x
    x<-x0-(Fx(x0)*F1x(x0)/(F1x(x0)^2-Fx(x0)*F2x(x0)))
    cat("X=",x,"\n")
  }
}
#Tiempo ejecución Newton Generalizado
t <- proc.time()
NewtonMod(1)
print(proc.time()-t)
```

```
X= 0.3035135
X= -1.980278
X= -1.924597
X= -1.815533
X= -1.699936
X= -1.641102
X= -1.631641
X= -1.631444
X= -1.631444
   user  system elapsed
  0.008   0.000   0.007
```