vector2\_assignment.R

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#find output of the following  
x=c(1:5)  
y=c(3,6)  
x\*y

## Warning in x \* y: longer object length is not a multiple of shorter object  
## length

## [1] 3 12 9 24 15

#out of the code  
sample(1:50,4)

## [1] 1 33 36 13

#calculate  
income<-c(24674.49,6606.46,8621.41,9175.41,8058.41,9175.41,8058.65,8105.44,  
 11496.28,9766.09,1030.32,14379.96,10713.97,15433.50)  
income

## [1] 24674.49 6606.46 8621.41 9175.41 8058.41 9175.41 8058.65 8105.44  
## [9] 11496.28 9766.09 1030.32 14379.96 10713.97 15433.50

expenses<-c(32161.82,4695.07,12089.72,7658.57,  
 1840.20,385.73,5821.12,6976.93,16618.61,10054.37,3803.96)  
expenses

## [1] 32161.82 4695.07 12089.72 7658.57 1840.20 385.73 5821.12 6976.93  
## [9] 16618.61 10054.37 3803.96

#profit  
profit=income-expenses

## Warning in income - expenses: longer object length is not a multiple of shorter  
## object length

cat("profit for each month:",profit)

## profit for each month: -7487.33 1911.39 -3468.31 1516.84 6218.21 8789.68 2237.53 1128.51 -5122.33 -288.28 -2773.64 -17781.86 6018.9 3343.78

#profit aftertax  
profit\_aftertax=(profit\*3)/100  
cat("profit after tax:",profit\_aftertax)

## profit after tax: -224.6199 57.3417 -104.0493 45.5052 186.5463 263.6904 67.1259 33.8553 -153.6699 -8.6484 -83.2092 -533.4558 180.567 100.3134

#profit margin  
profit\_margin=profit\_aftertax/income  
cat("profit margin for each month:",profit\_margin)

## profit margin for each month: -0.009103325 0.008679641 -0.01206871 0.004959473 0.02314927 0.02873881 0.008329671 0.004176861 -0.01336692 -0.000885554 -0.08076054 -0.03709717 0.01685342 0.006499718

#average profit margin  
avg\_profit\_margin<-mean(profit\_margin)  
cat("average profit margin",avg\_profit\_margin)

## average profit margin -0.003706811

#calculate good months  
Good\_months<-profit\_aftertax>avg\_profit\_margin  
Good\_months

## [1] FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE FALSE FALSE FALSE  
## [13] TRUE TRUE

month<-month.abb  
month

## [1] "Jan" "Feb" "Mar" "Apr" "May" "Jun" "Jul" "Aug" "Sep" "Oct" "Nov" "Dec"

GM<-month[Good\_months]  
cat("good months are:",GM)

## good months are: Feb Apr May Jun Jul Aug

#calaculate bad months  
BM<-month[!Good\_months]  
cat("bad moths are:",BM)

## bad moths are: Jan Mar Sep Oct Nov Dec

#calaculate best month  
Best\_month<-profit\_aftertax==max(profit\_aftertax)  
Best\_mon<-month[Best\_month]  
cat("Best\_months are:",Best\_mon)

## Best\_months are: Jun

#calculate worst month  
worst\_month<-profit\_aftertax==min(profit\_aftertax)  
worst\_month<-month[worst\_month]  
cat("worst month:",worst\_month)

## worst month: Dec