question\_4.R

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#a we can see 8 manifest variables  
# 3 common factors  
#b how to take the uniqueness from the partial output?  
efa\_result<-data.frame("Variables"=c("x1","x2","x3","x4","x5","x6","x7","x8"),  
 "Factor1" = c(0.665,0,0.798,0.717,0,0,-0.218,0.810),   
 "Factor2" = c(-0.354,0.205,-0.127,0,0.318,0.831,0.594,0),   
 "Factor3" = c(0.167,0.664,0,-0.121,0.609,0.367,0.314,-0.366))  
  
#Communality = Row sum of Manifest variables factors  
efa\_result$Communality<-(efa\_result$Factor1)^2+(efa\_result$Factor2)^2+(efa\_result$Factor3)^2  
#Uniqueness = 1 - Communality  
efa\_result$Uniqueness<-1-efa\_result$Communality  
efa\_result$Communality

## [1] 0.595430 0.482921 0.652933 0.528730 0.472005 0.825250 0.498956 0.790056

efa\_result$Uniqueness

## [1] 0.404570 0.517079 0.347067 0.471270 0.527995 0.174750 0.501044 0.209944

#c technically yes but no because the p-value lies on the border line  
#d 0.289 and 0.457  
#e\*\*\*\*\*\* factor 2 are sure of this?