```r
gend <- matrix(c(1044,893,971,851,962,912,408,332,389,380,390,436), ncol = 6, byrow = TRUE)
colnames(gend) <- c("2020","2019","2018","2017","2016","2015")
rownames(gend) <- c("Female", "Male")

gend <- as.table(gend)

gend
```

```
##        2020 2019 2018 2017 2016 2015
## Female 1044  893  971  851  962  912
## Male    408  332  389  380  390  436
```

```r
results <- chisq.test(gend)

results$expected
```

```
##             2020     2019     2018     2017     2016     2015
## Female 1026.4955 866.0172 961.4558 870.2589 955.8002 952.9724
## Male    425.5045 358.9828 398.5442 360.7411 396.1998 395.0276
```

```r
results
```

```
##
##  Pearson's Chi-squared test
##
## data:  gend
## X-squared = 11.814, df = 5, p-value = 0.03743
```

Ho: No relationship exist between the number of male and female students over the last 5 years Ha: There is a relationship between the number of male and female students over the last 5 years

Test Statistic = X-squared = 11.814 p-value = 0.03743

Conclusion: Reject Ho in favor of Ha. There is sufficient evidence to conclude that a relationship exist between the year and the amount of males and females.

```r
barplot(gend, ylim = c(0,1300),ylab='Counts',beside = TRUE, legend = TRUE)
```