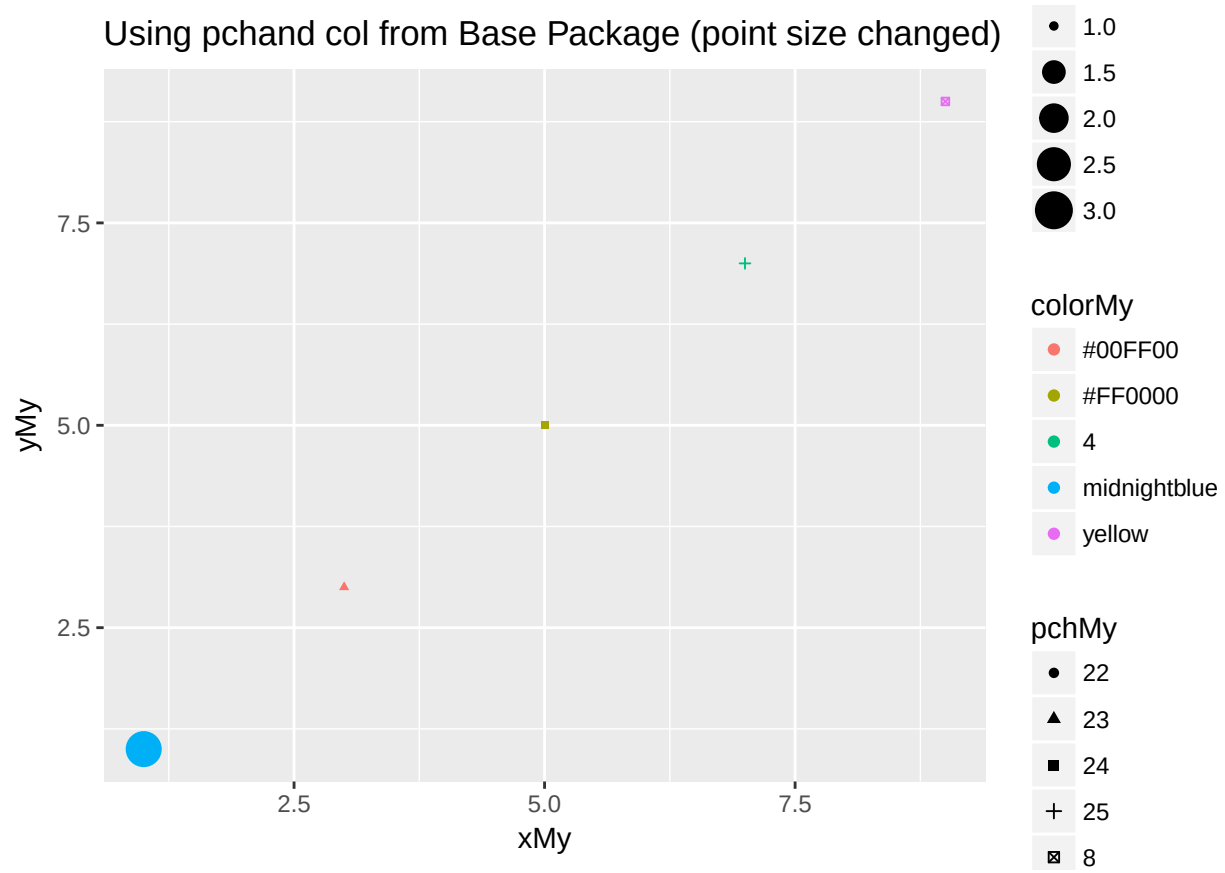
ChallengeQuestionsLession5_XinHuang

Challenge Question 1

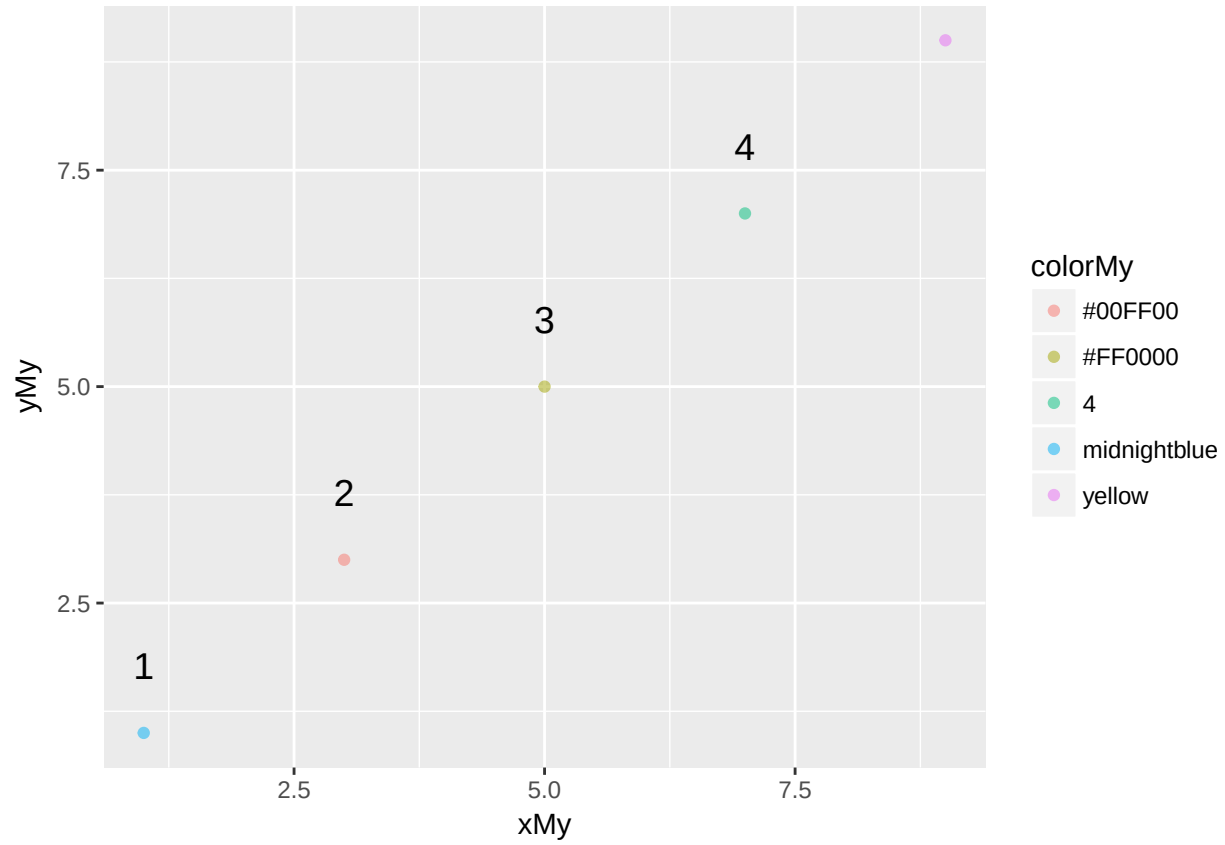
```
pchMy <- c("22","23","24","25","8")
colorMy <- c("midnightblue","#00FF00", "#FF0000","4","yellow")
dfMy <- data.frame(
    xMy = c(1,3,5,7,9),
    yMy = c(1,3,5,7,9),
    colorMy = c("midnightblue","#00FF00", "#FF0000","4","yellow")
)

#manipulating size
mySize <- c(3, 1, 1, 1, 1)
qplot(xMy, yMy, data = dfMy,
      col = colorMy,
      pch = pchMy,
      size = mySize,
      main ="Using pchand col from Base Package (point size changed)")
```

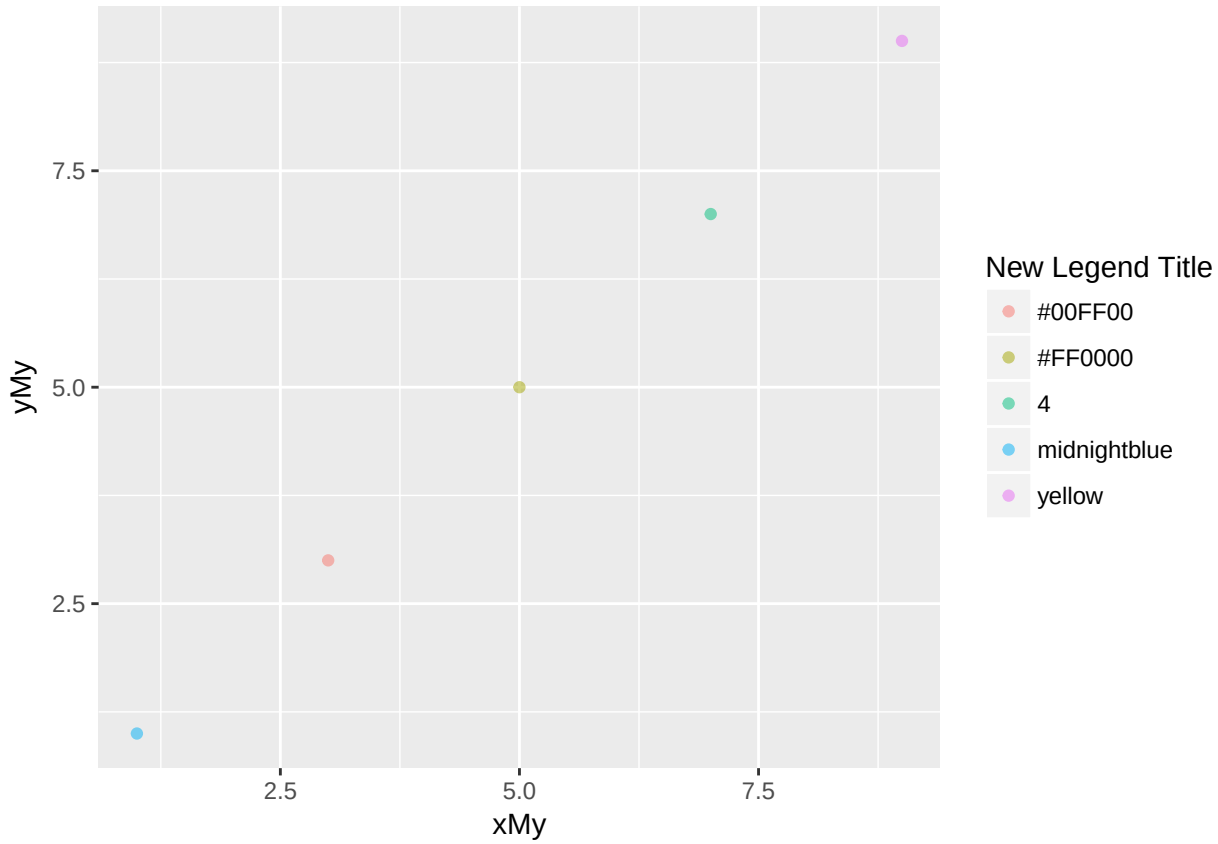



```
# lable points
# use row names as lables
ggplot(dfMy, aes(xMy, yMy)) +
```

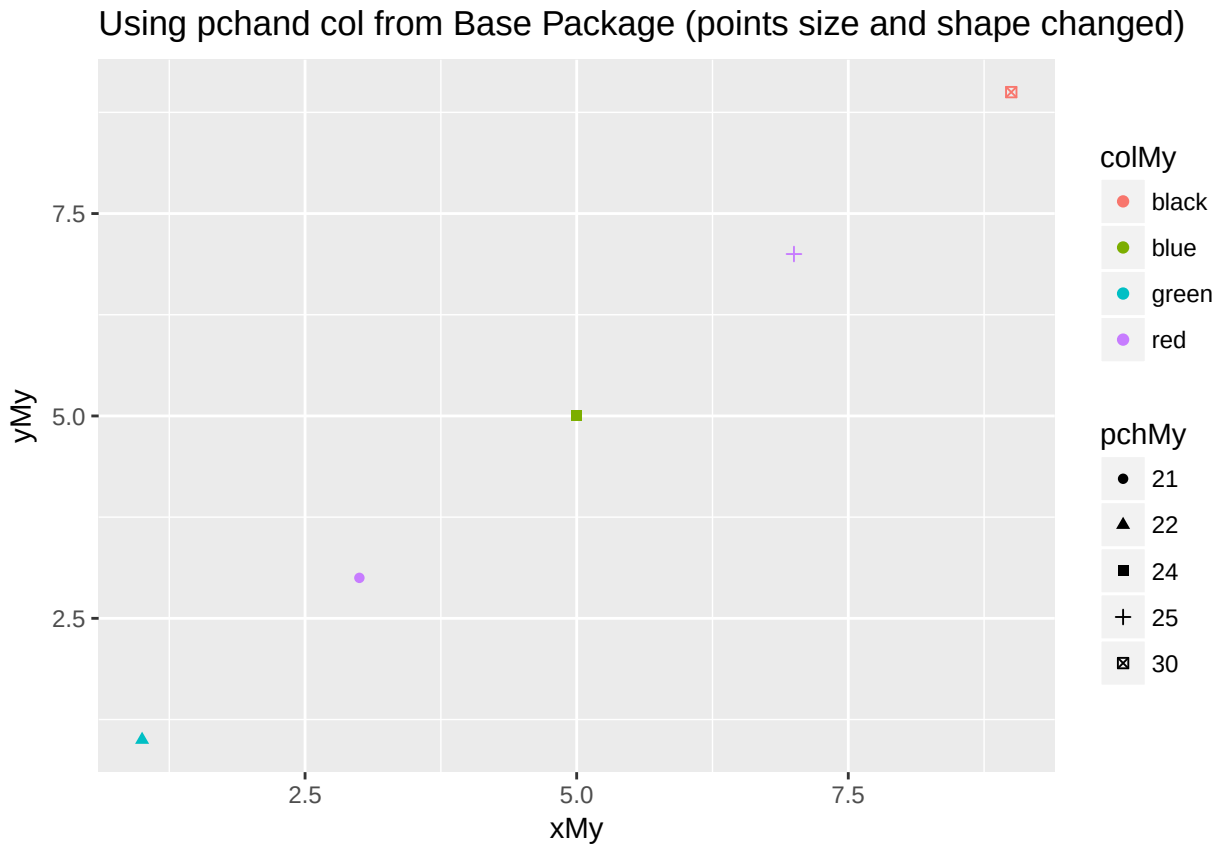
```
    geom_point(aes(color = colorMy), shape = 19, alpha = 0.5) +
    geom_text(aes(label = rownames(dfMy)), position = "identity", size = 5, vjust = -2)
```




```
# change legends title
ggplot(dfMy, aes(xMy, yMy)) +
    geom_point(aes(color = colorMy), shape = 19, alpha = 0.5) +
    guides(color=guide_legend(title="New Legend Title"))
```




```
# change point color and shape
pchMy <- c("22","21","24","25","30")
colMy <- c("green", "red", "blue", "red", "black")
qplot(xMy, yMy, data = dfMy,
      col = colMy,
      pch = pchMy,
      main ="Using pchand col from Base Package (points size and shape changed)")
```



Challenge Question 3

Add title & rename legend & move legend to the left

```
ggplot(mtcars, aes(disp, mpg, color=as.factor(cyl))) +
    geom_point() +
    geom_smooth(se=FALSE) +
    ggtitle("mpg as function of disp") +
    guides(color = guide_legend(title = "cylinder")) +
    theme(legend.position = "left")
```

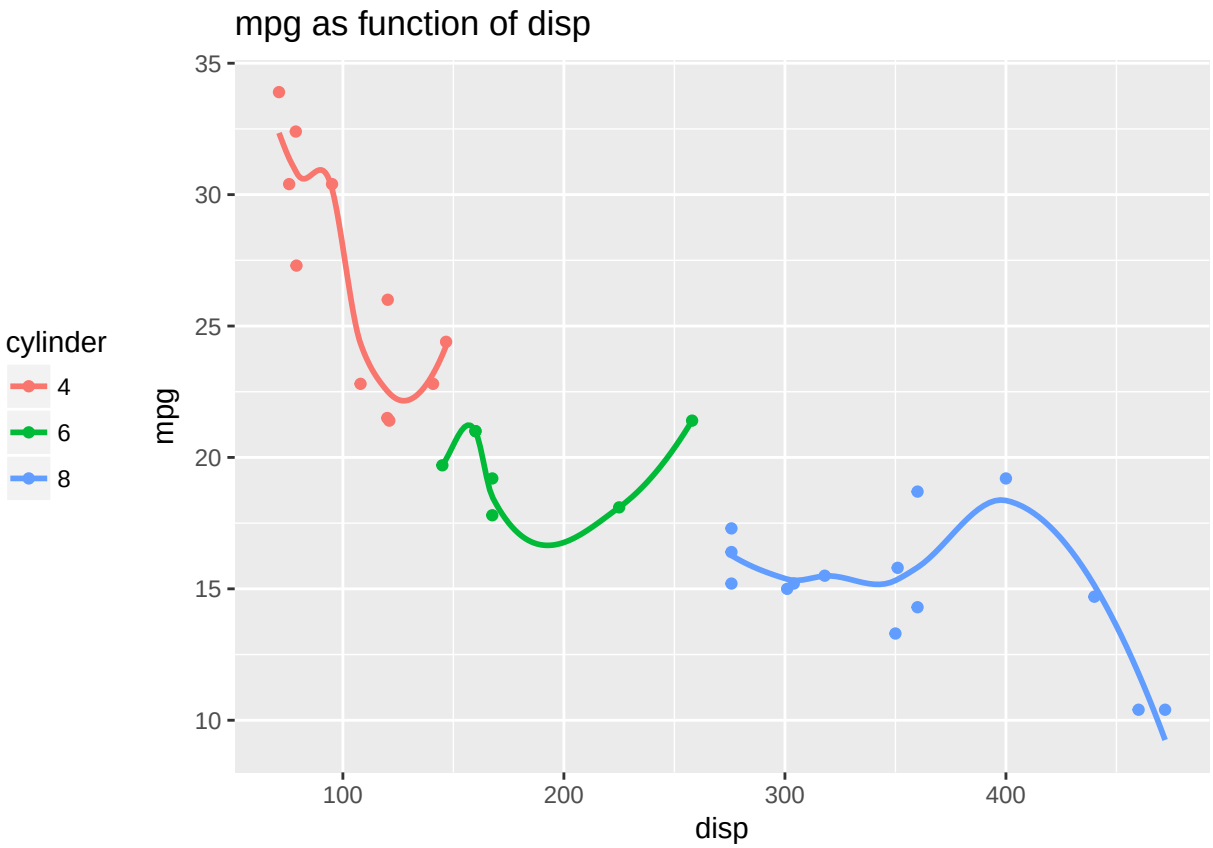
```
## `geom_smooth()` using method = 'loess'
```

```
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : pseudoinverse used at 144.44
```

```
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : neighborhood radius 23.165
```

```
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : reciprocal condition number 4.8226e-17
```

```
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : There are other near singularities as well. 510.76
```


mpg as function of disp
cylinder
4
6
8
mpg
35
30
25
20
15
10
100
200
300
400
disp