

제5장 박스플롯 데이터라벨 달기

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#----- p. 146 박스 플롯에 데이터 라벨달기**

# I. Box plot

mag <- quakes$mag

# change the plot window size : (7 x 7) => (4 X 7)
win.graph(4,7)

# 1. Box Plot
boxstats <- boxplot(mag,
                    main="지진 발생 강도의 분포",
                    xlab="지진 강도",
                    ylab="발생 건수",
                    col="red",
                    notch=TRUE)

# 2. Display the points => points()
len <- length(mag)          # the number of data
points(mag, rep(1,len))    # position of points : (x, y=1)

# 3. Display fivenumbers => boxstats$stats
#   => text(x, y, labels)
text(0.65, boxstats$stats, labels=boxstats$stats, pos=3, cex=0.8) # cex=0.8 : size
of text

# pos = 1, 2, 3, 4

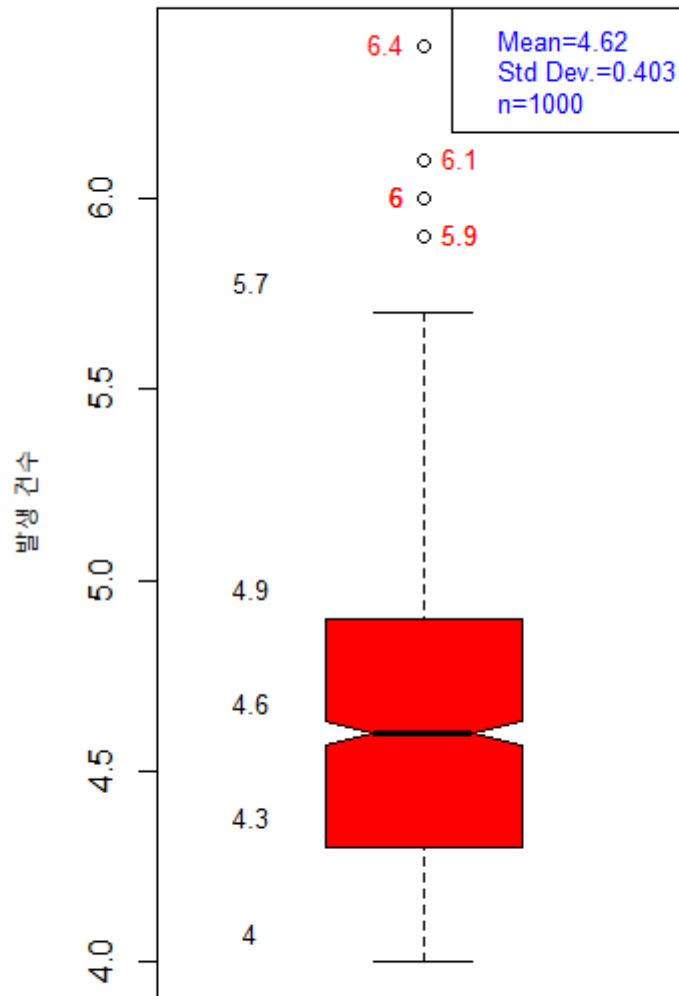
# 4. display legend (Mean, Std Dev., n) => legend()
# paste0()
legend("topright",
       paste0(c("Mean", "Std Dev.", "n"), "=",
             round(c(mean(mag), sd(mag), length(mag)), 3)),
       text.col = 4,      # color of legend text
       cex=0.8)         # size of legend text

# 5. Display Outliers
text( rep(1, NROW(boxstats$out)),
      boxstats$out,
      labels = boxstats$out,
      pos = c(4,2,2,4,4,2,2),
      cex = 0.8,
      col = "red"
    )

#---- 데이터 라벨 달기 끝
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결과 :

지진 발생 강도의 분포



지진 강도

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#----- p. 146 박스 플롯을 수평으로 하고, 데이터 라벨 달기
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# II. horizontal box plot
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mag <- quakes$mag
```

```
# change the plot window size : (7 x 7) => (7 X 4)
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```
win.graph(7,4)
```

```
# 1. Horizontal Box Plot
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boxstats <- boxplot(mag,  
  main="지진 발생 강도의 분포",  
  xlab="지진 강도",  
  ylab="발생 건수",  
  col="red",  
  notch=TRUE,  
  horizontal=T)
```

```

# 2. Display the points => points()
len <- length(mag)          # the number of data
points(mag, rep(1,len))     # position of points : (x, y=1)

# 3. Fivenumbers => boxstats$stats
text(boxstats$stats, 0.75, labels=boxstats$stats, pos=4, cex=0.8) # cex=0.8 : size
of tex
                                # pos = 1, 2, 3, 4

# 4. display legend (Mean, Std Dev., n) => legend()
# paste0()
legend("topright",
      paste0(c("Mean", "Std Dev.", "n"), "=",
            round(c(mean(mag), sd(mag), length(mag)), 3)),
      text.col = 4,        # color of legend text
      cex=0.8)           # size of legend text

# 5. Displaying outliers
text( boxstats$out, rep(1, NROW(boxstats$out)),
      labels = boxstats$out,
      pos = c(3,1,1,3,3,1,1),
      cex=0.8,
      col="red"
)
#---- 데이터 라벨 달기 끝

```

결과 :

지진 발생 강도의 분포

