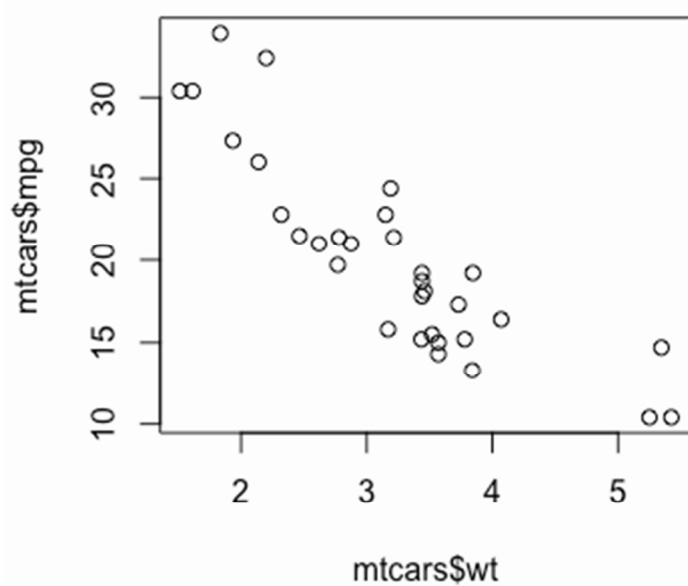


ACADGILD ASSIGNMENT 7.3

1. Create a **box and whisker plot** by class using **mtcars** dataset.

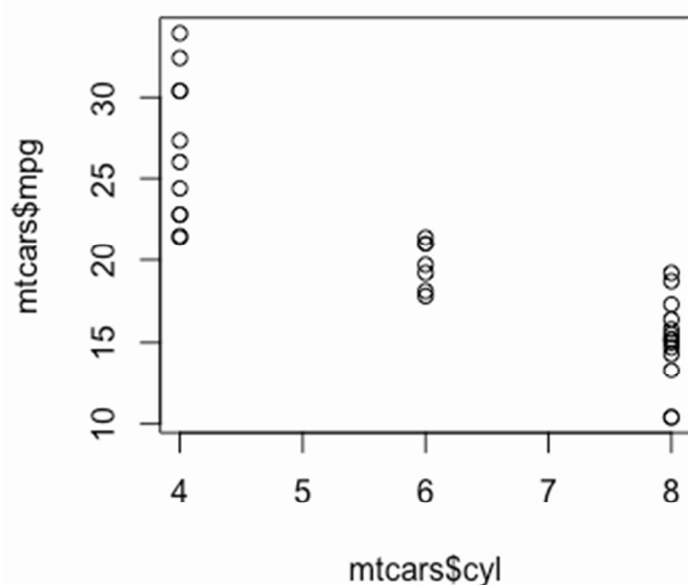
scatter plot use `plot()` with a vector of x values and a vector of y values:

```
# base R  
plot(x = mtcars$wt, y = mtcars$mpg)
```



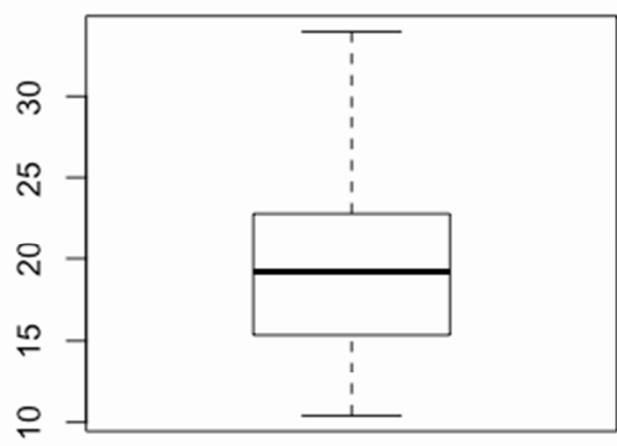
use `plot()` and pass it x values that are categorical and a vector of y values. However, we need to ensure that the x values are factors otherwise you will get a scatter plot by default:

```
# if x is not a factor it will produce a scatter plot  
plot(mtcars$cyl, mtcars$mpg)
```

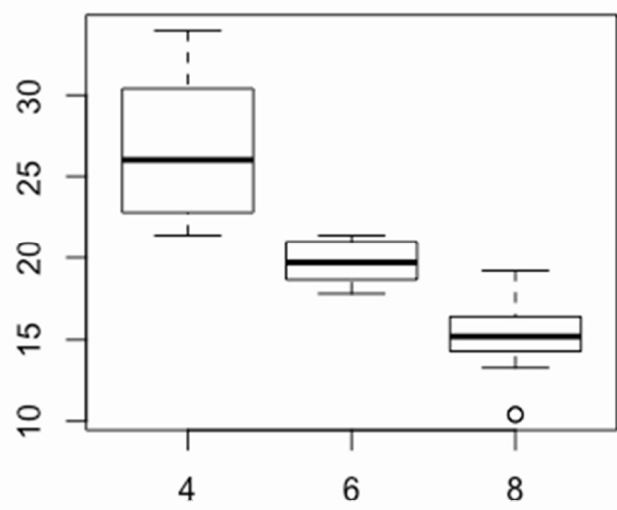


Alternatively, we can use the `boxplot()` function to create a box plot. We can create a single box plot with the following:

```
# boxplot of mpg  
boxplot(mtcars$mpg)
```



```
# boxplot of mpg by cyl  
boxplot(mpg ~ cyl, data = mtcars)
```



```
# boxplot of mpg based on interaction of two variables  
boxplot(mpg ~ cyl + am, data = mtcars)
```

