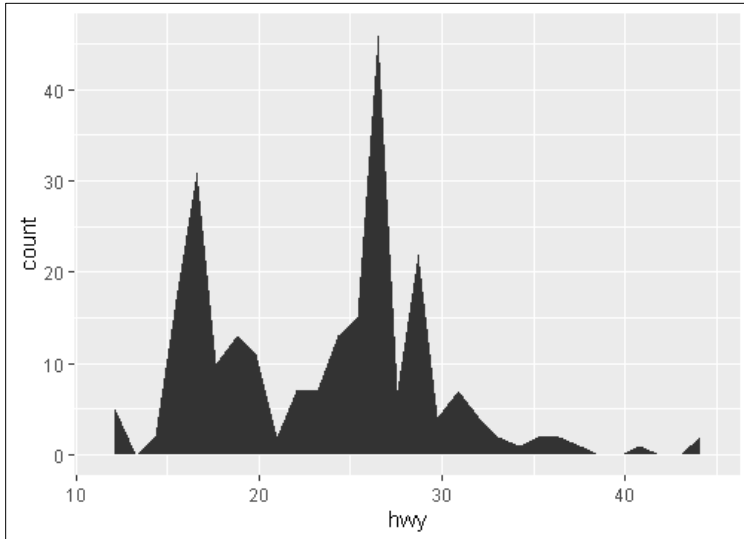


## Data Visualizations using 'ggplot2'

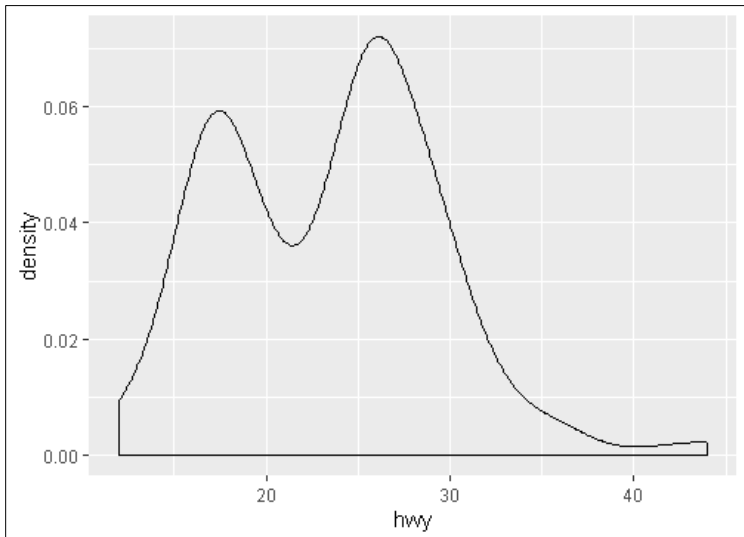
One variable

Continuous

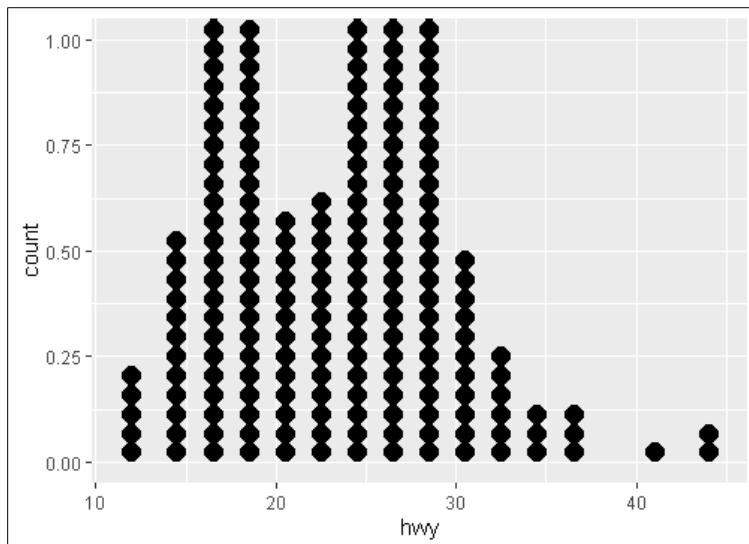
1. `geom_area`



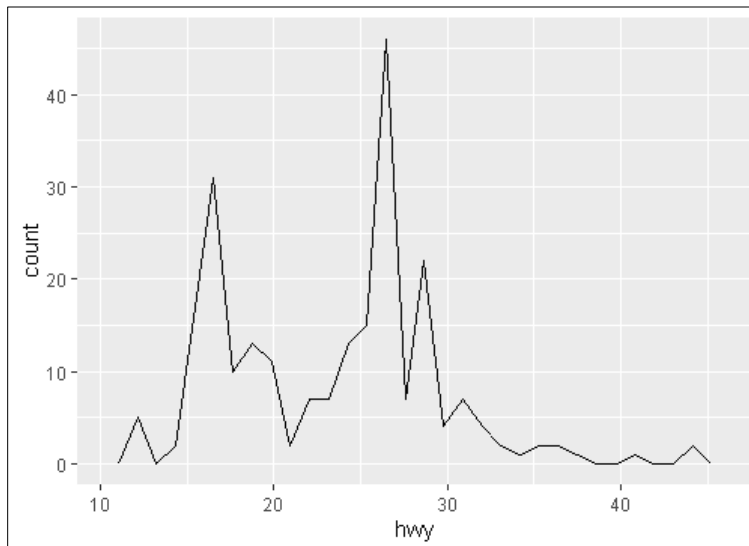
2. `geom_density`



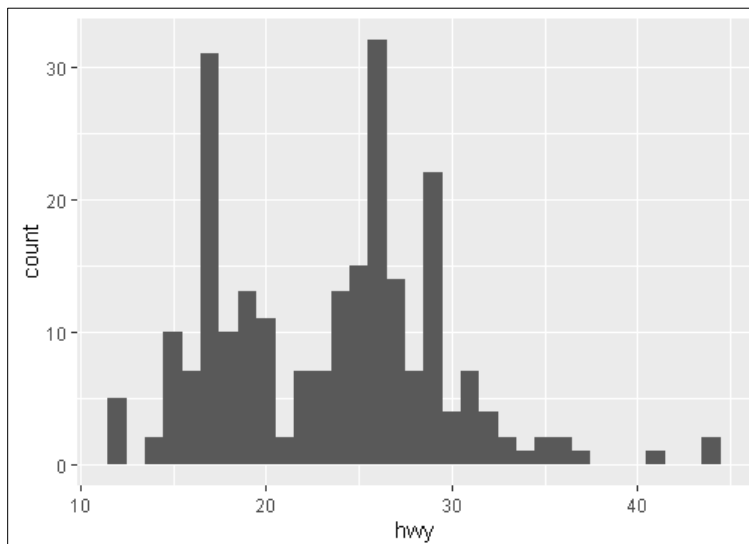
3. geom\_dotplot



4. geom\_freqpoly

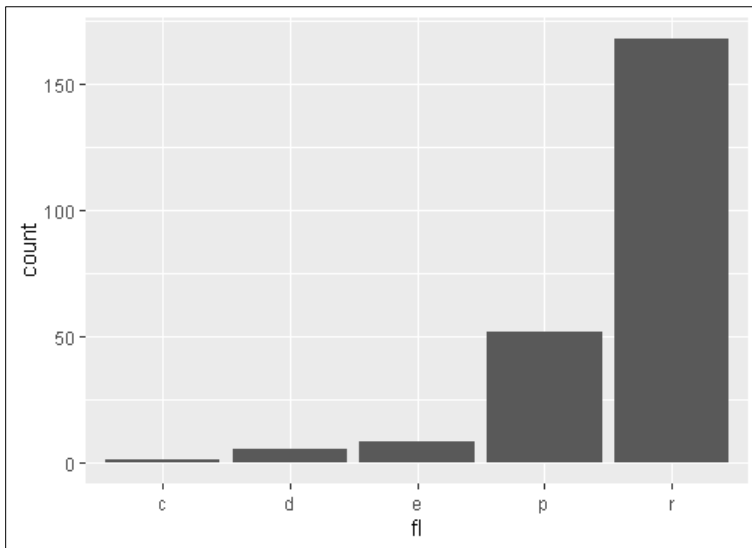


5. geom\_histogram



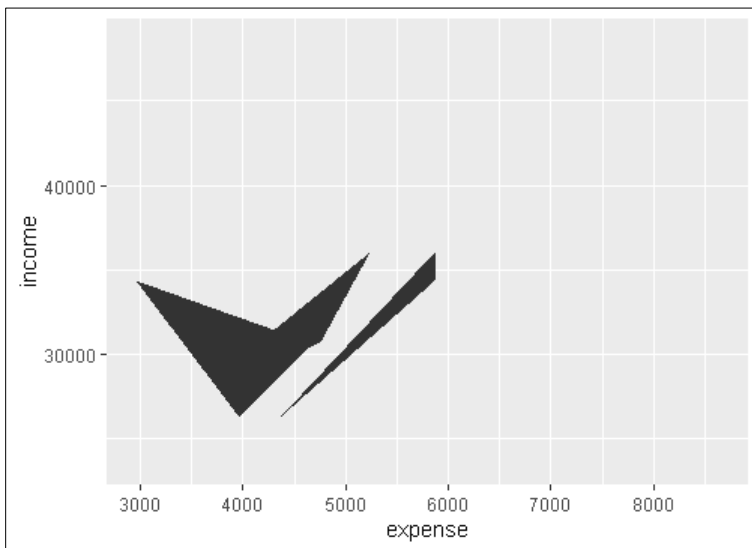
## Discrete

### 1. geom\_bar

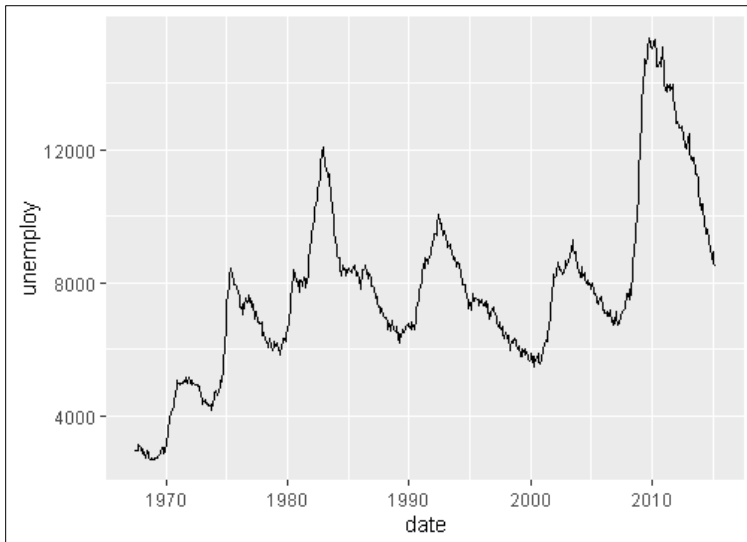


## Graphical Primitives

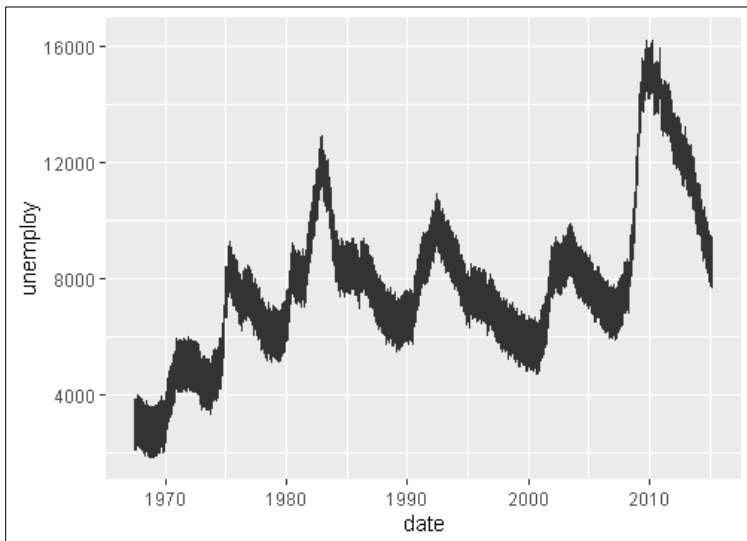
### 1. geom\_polygon



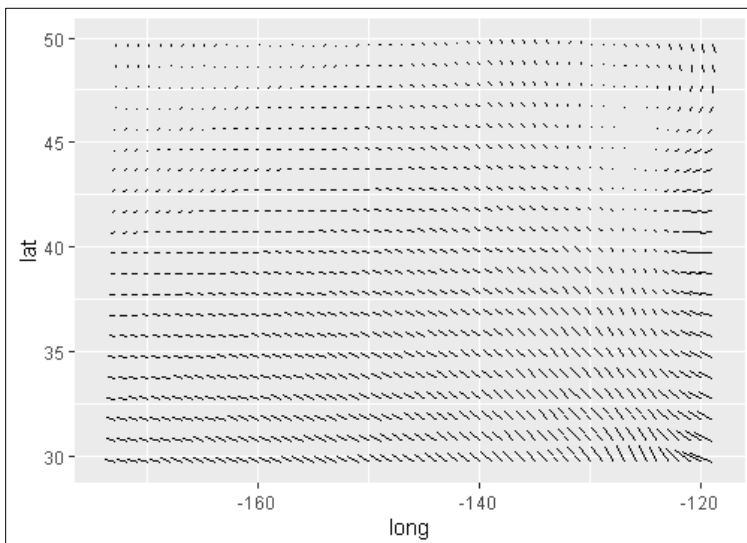
## 2. geom\_path



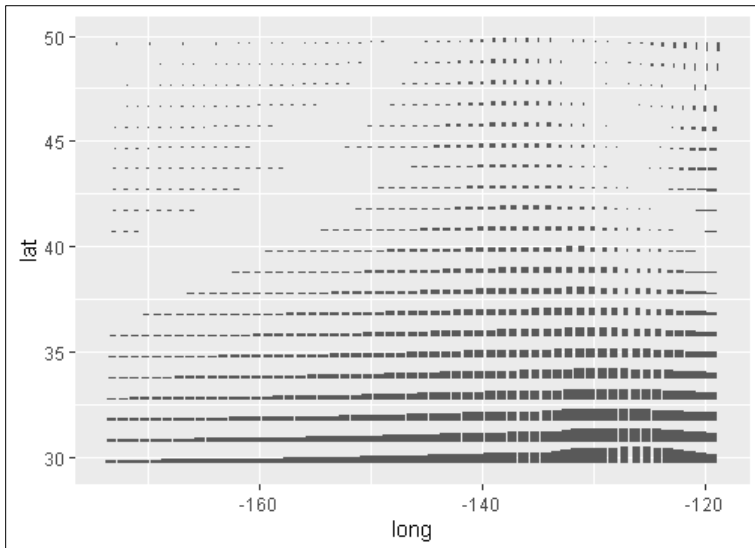
## 3. geom\_ribbon



## 4. geom\_segment



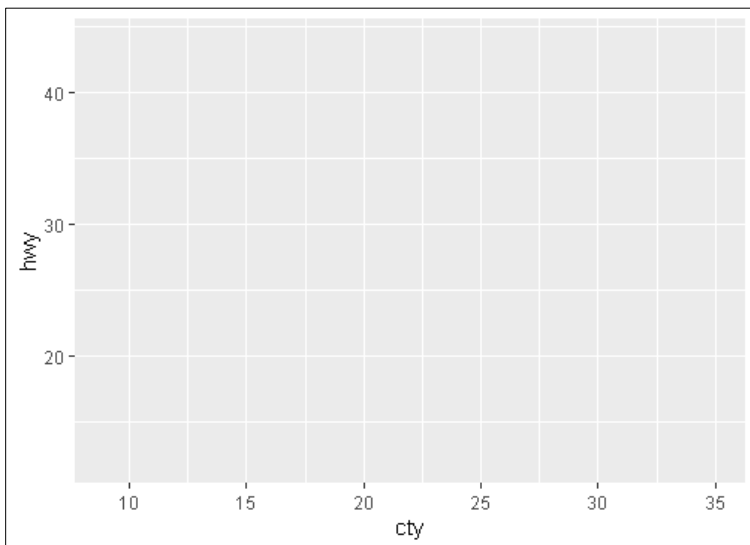
## 5. geom\_rect



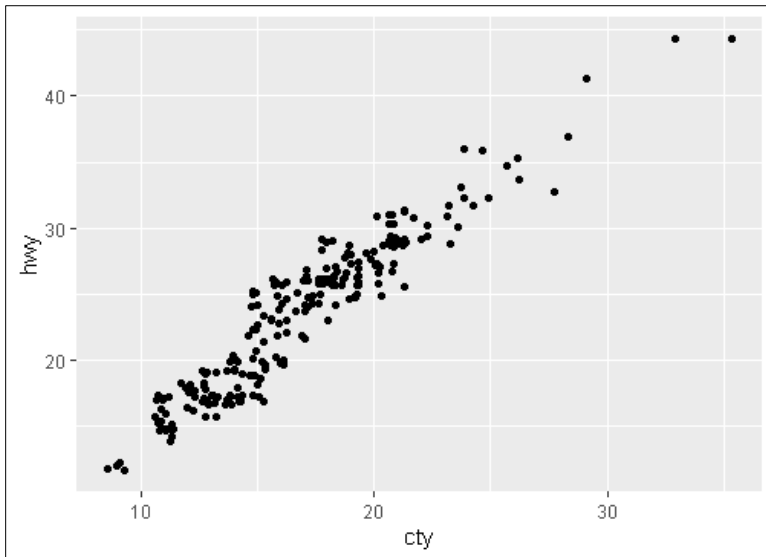
## Two Variables

### Continuous X, Continuous Y

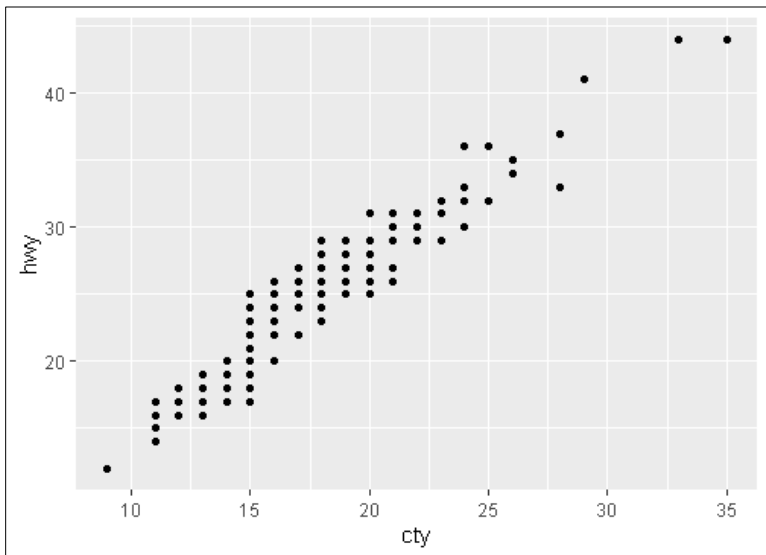
#### 1. geom\_blank



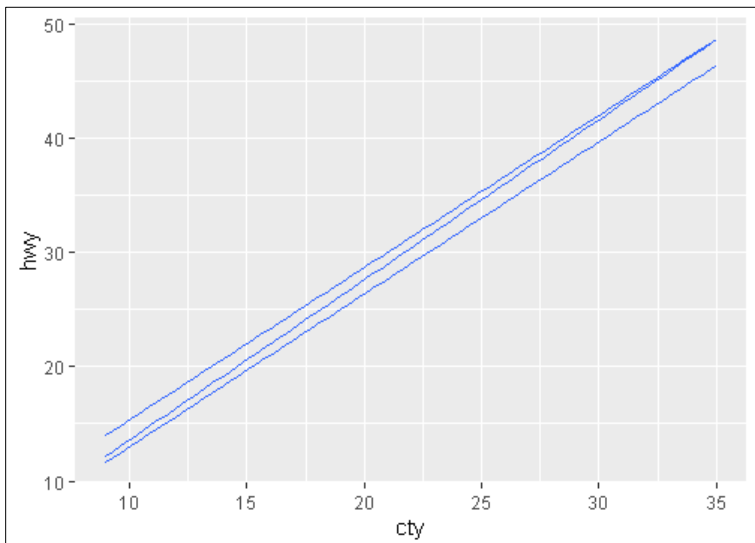
2. geom\_jitter



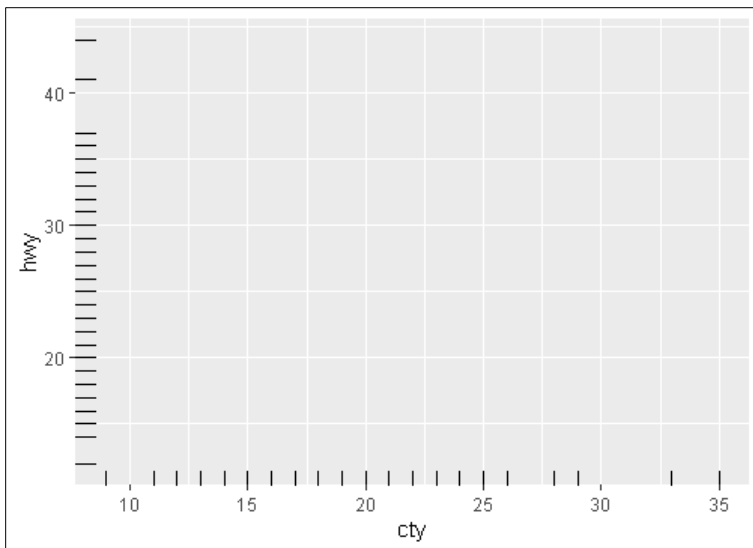
3. geom\_point



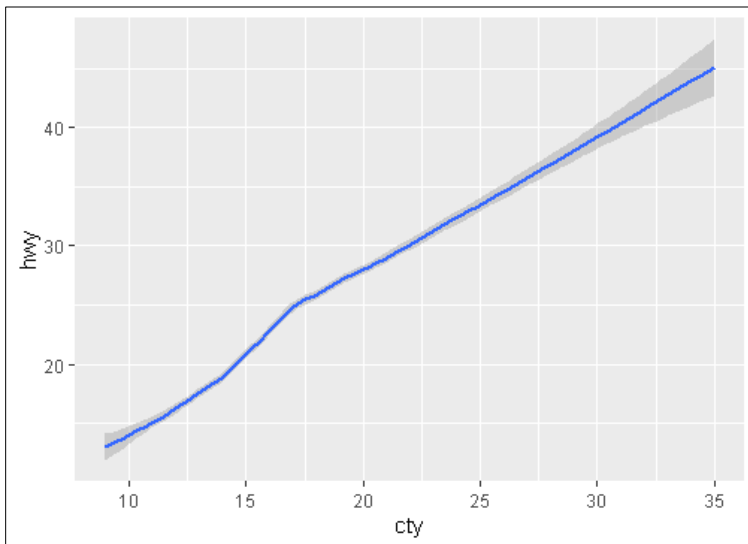
4. geom\_quantile



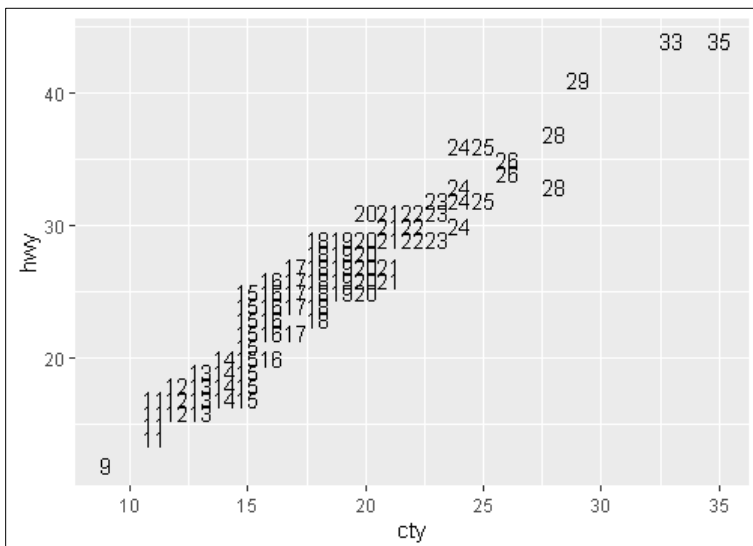
5. geom\_rug



6. geom\_smooth

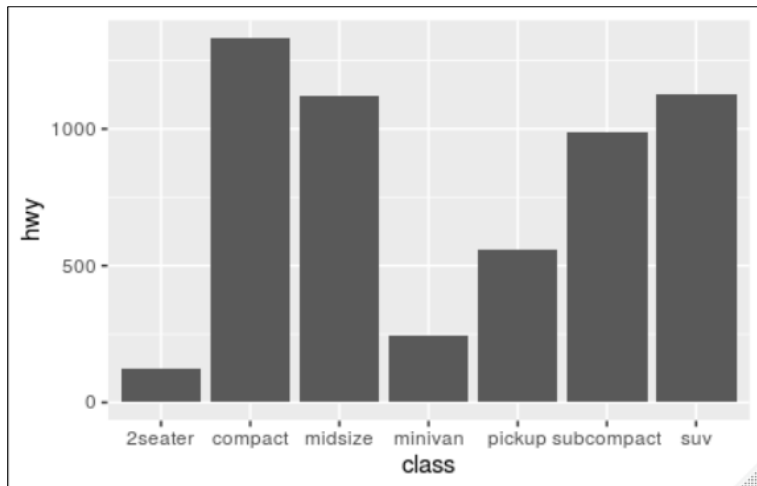


7. geom\_text

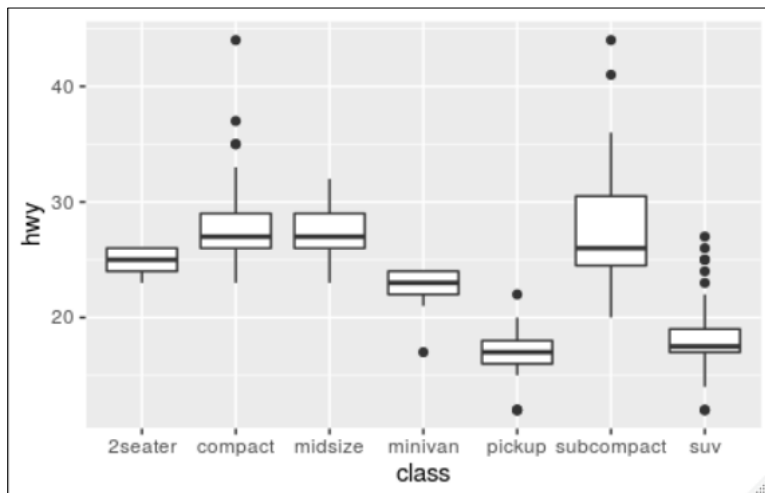


## Discrete X, Continuous Y

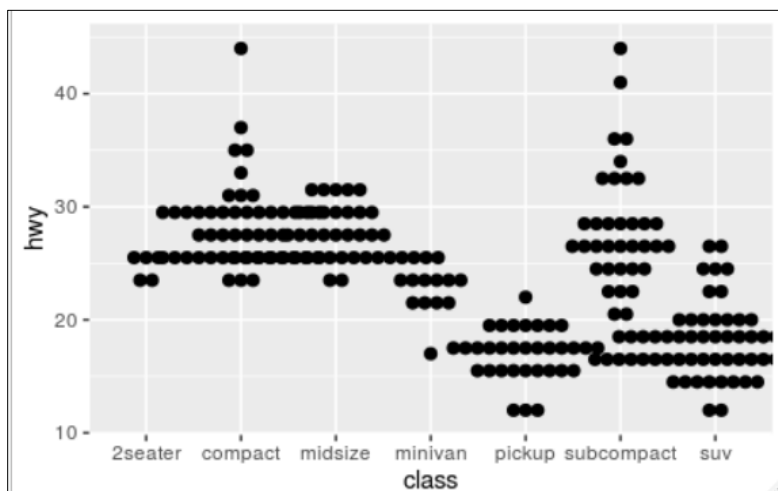
### 1. geom\_bar



### 2. geom\_boxplot

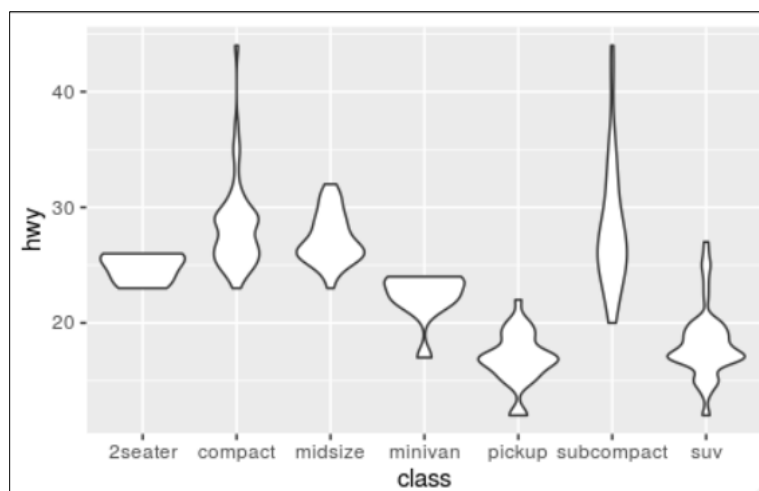


### 3. geom\_dotplot



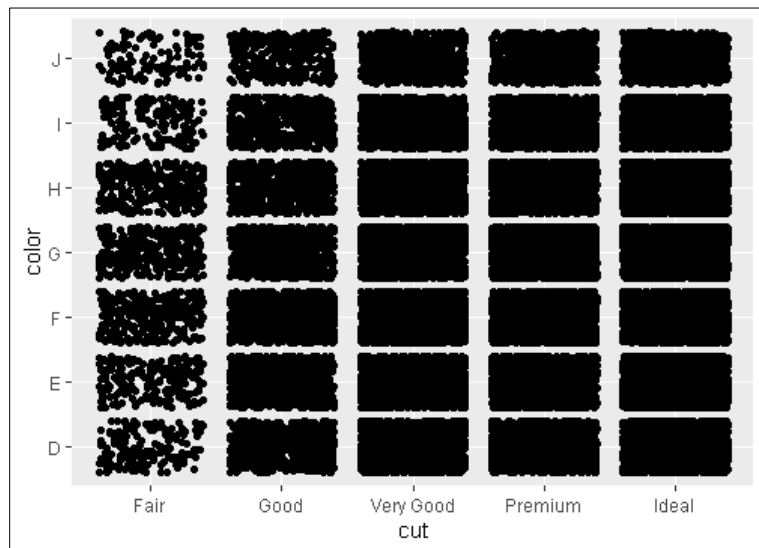


#### 4. geom\_violin



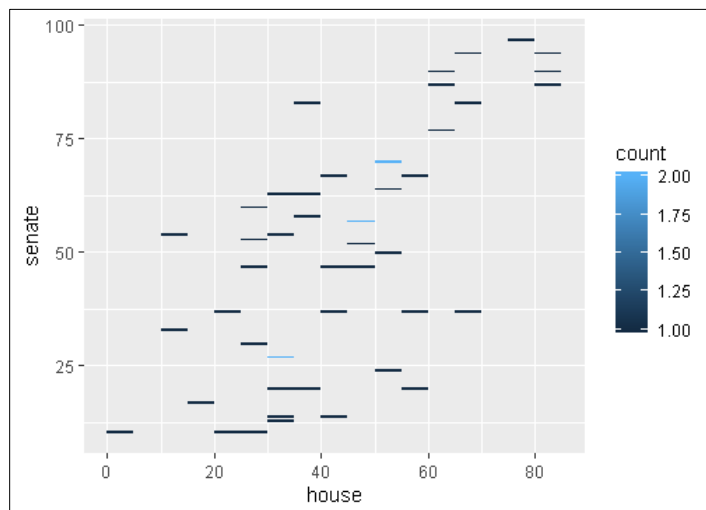
#### Discrete X, Discrete Y

##### 1. geom\_jitter

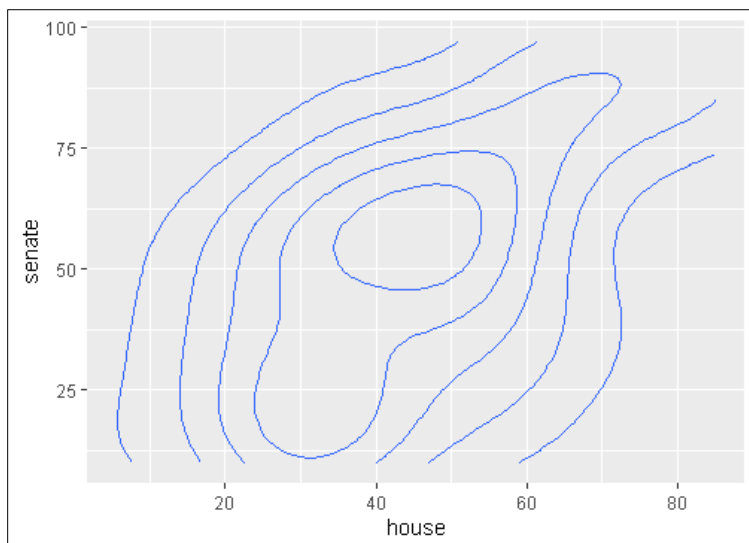


#### Continuous Bivariate Distribution

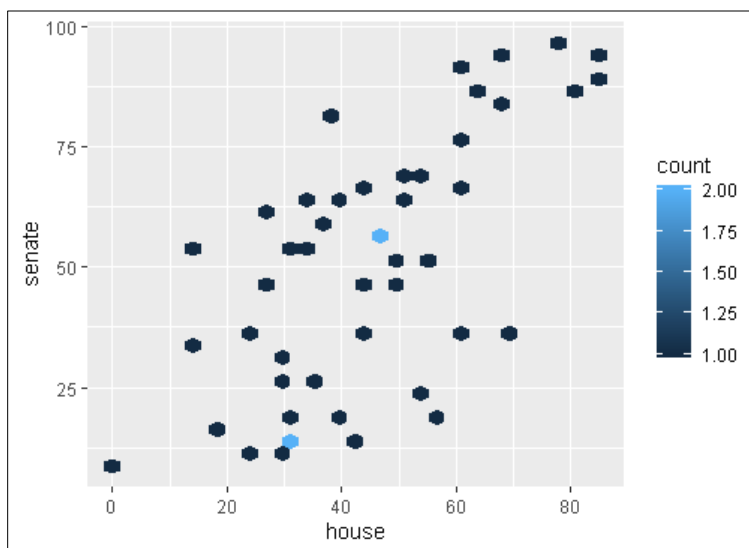
##### 1. geom\_bin2d



## 2. geom\_density2d

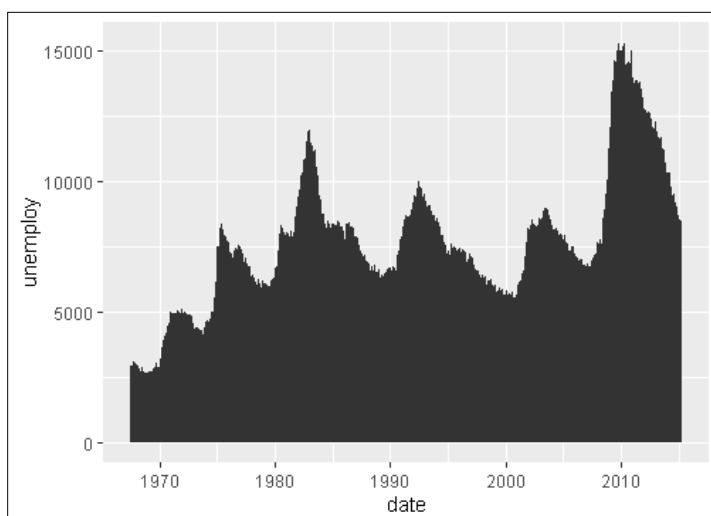


## 3. geom\_hex

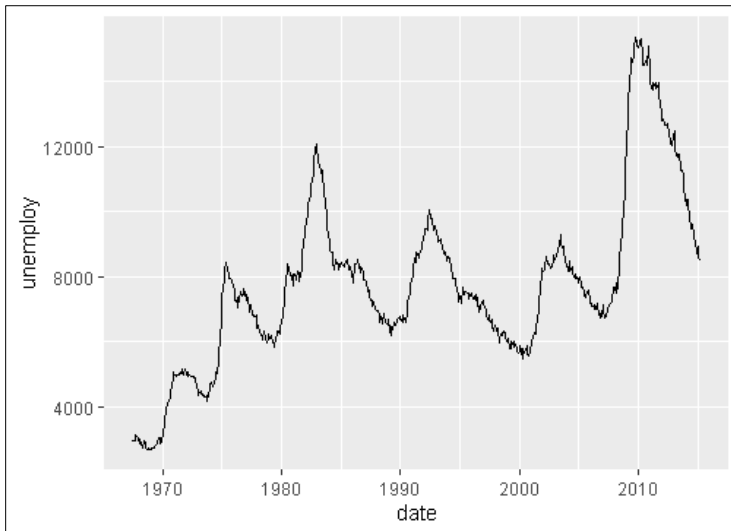


## Continuous Function

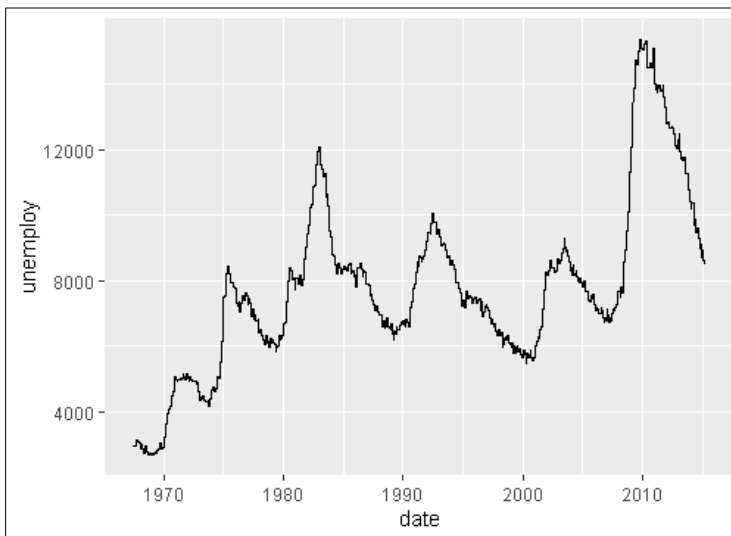
### 1. geom\_area



## 2. geom\_line

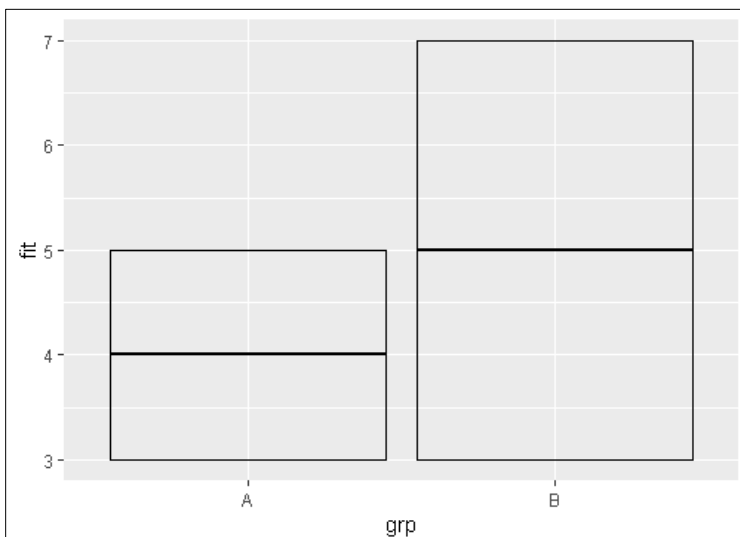


## 3. geom\_step

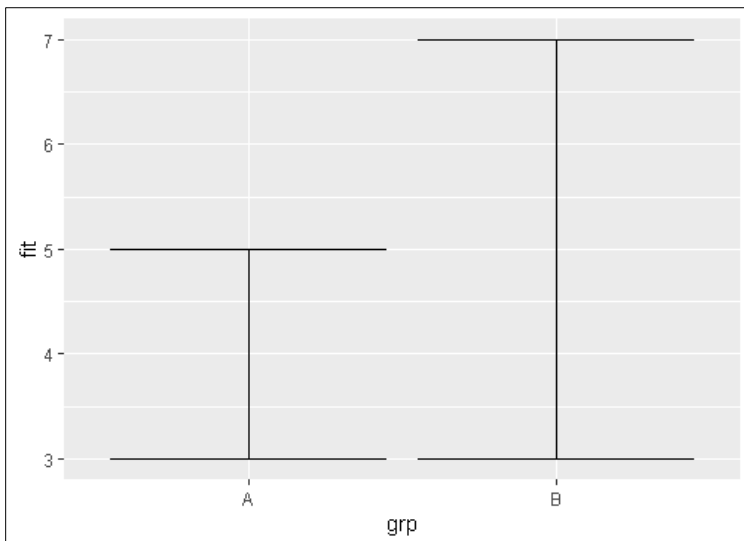


## Visualizing error

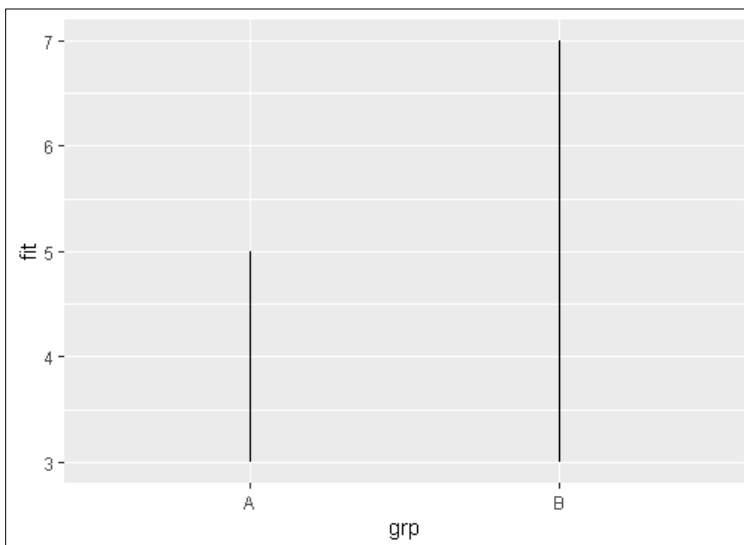
### 1. geom\_crossbar



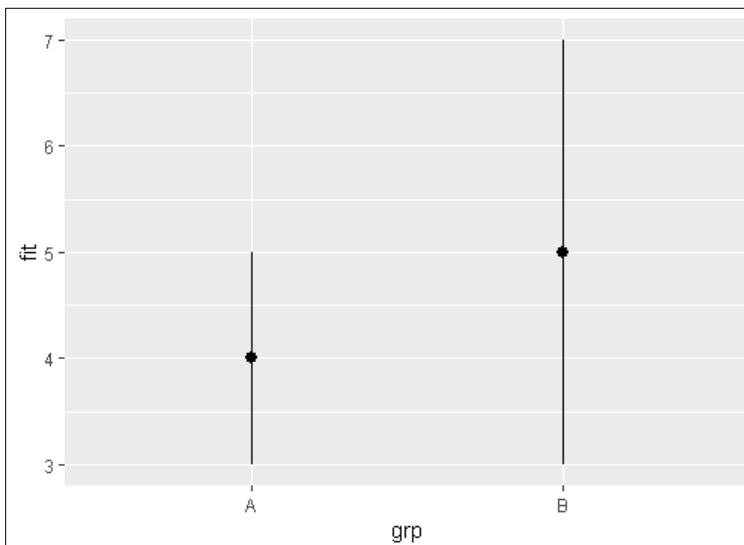
2. geom\_errorbar



3. geom\_linerange

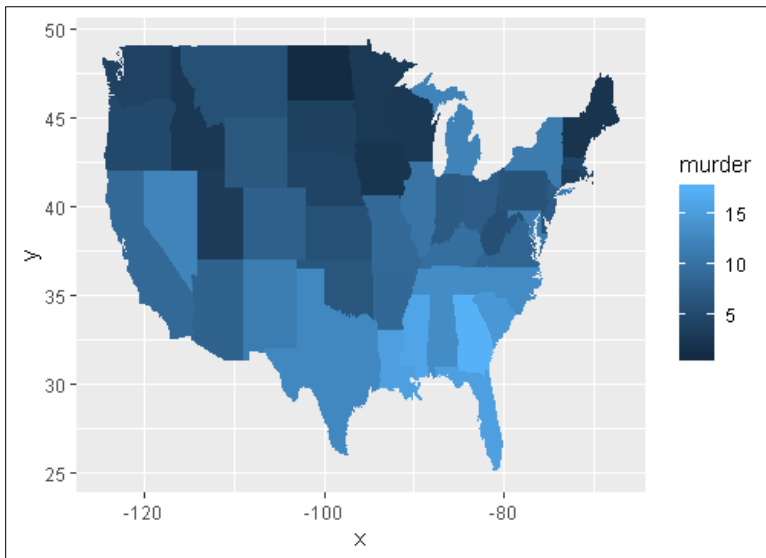


4. geom\_pointrange



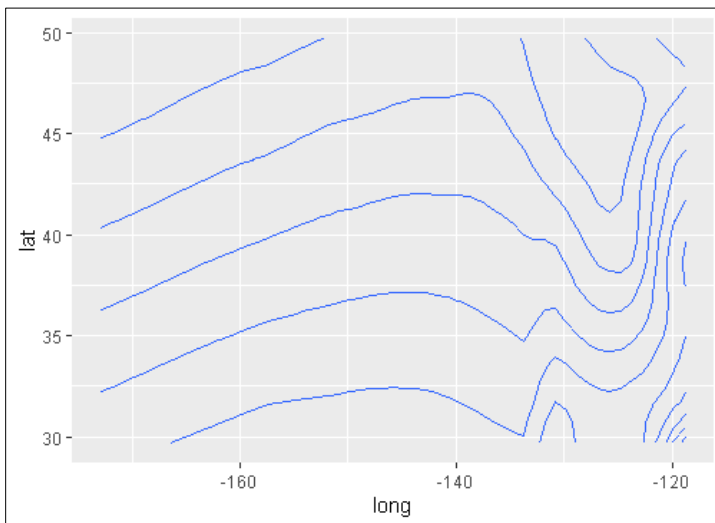
## Maps

### 1. geom\_map

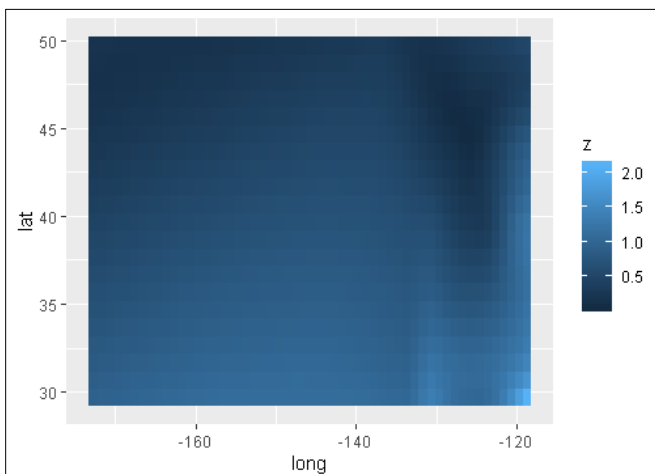


## Three Variables

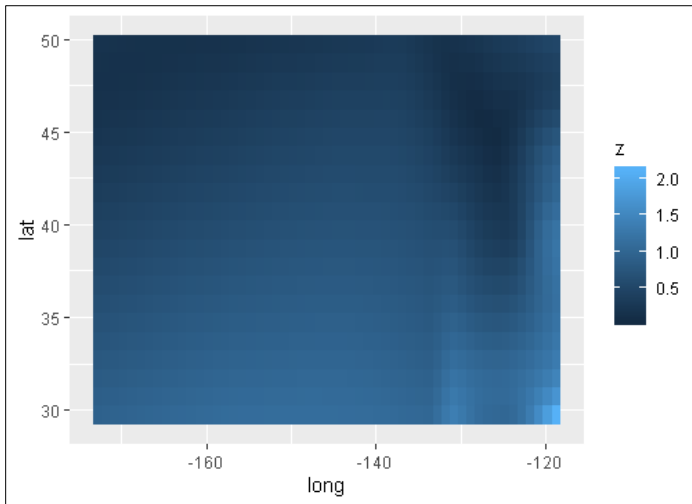
### 1. geom\_contour



### 2. geom\_raster



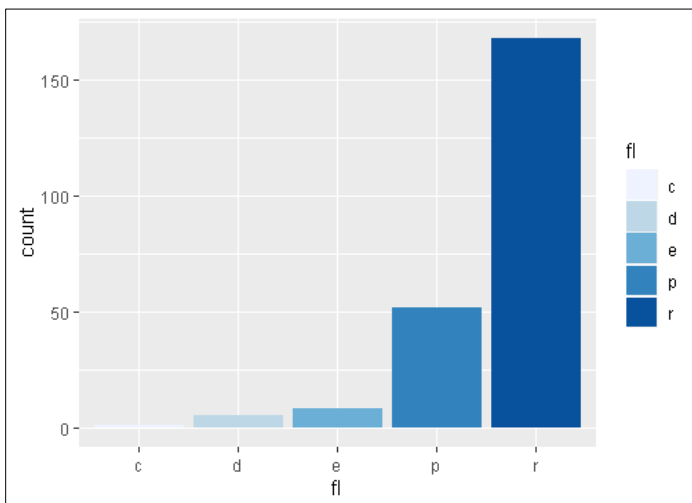
### 3. geom\_tile



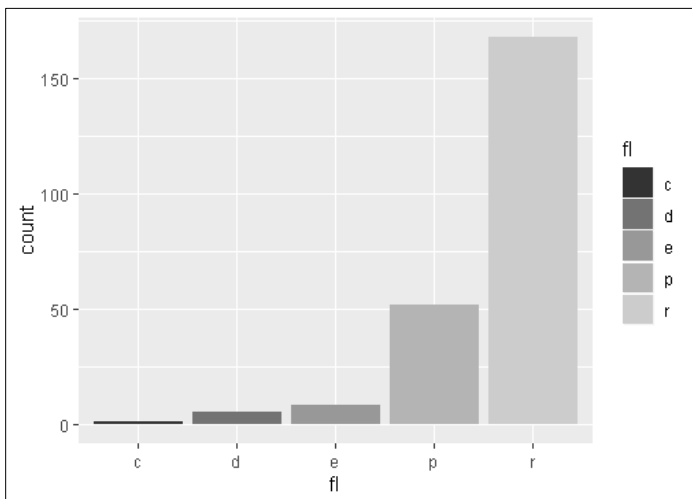
## Scales

### Discrete

#### 1. scale\_fill\_brewer

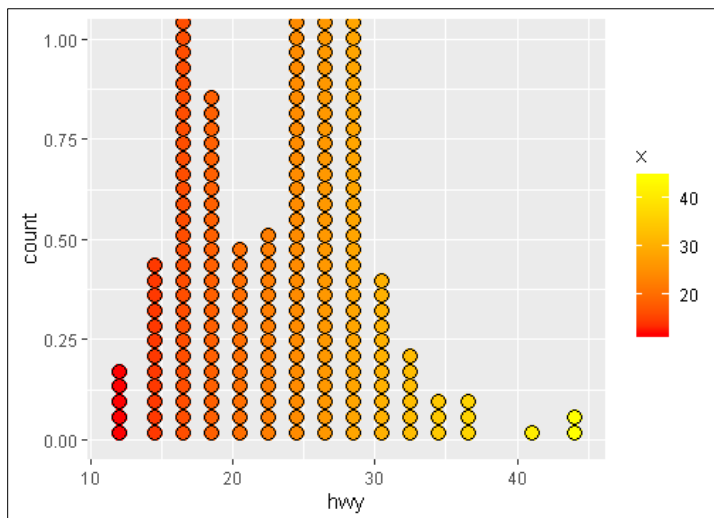


#### 2. scale\_fill\_grey

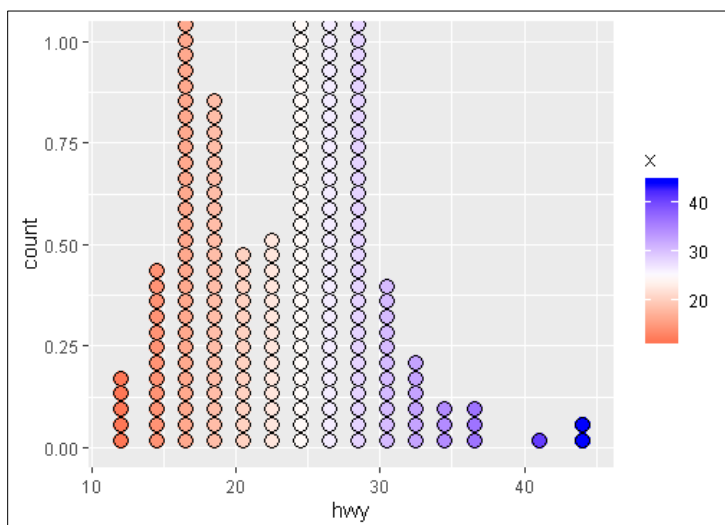


## Continuous

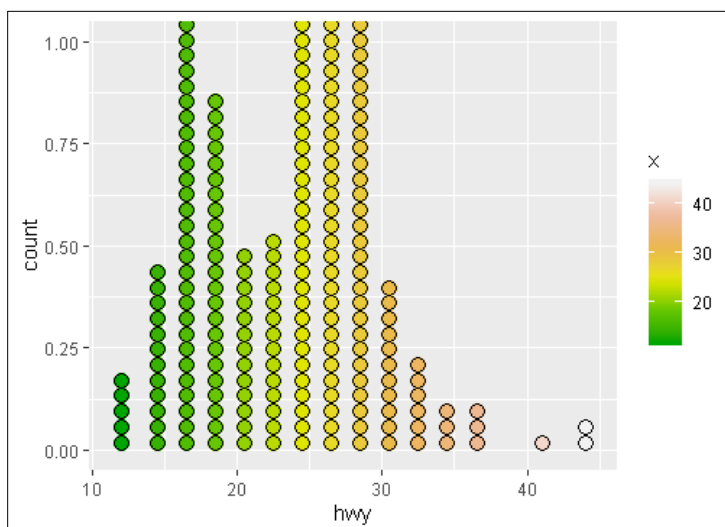
### 1. scale\_fill\_gradient



### 2. scale\_fill\_gradient2

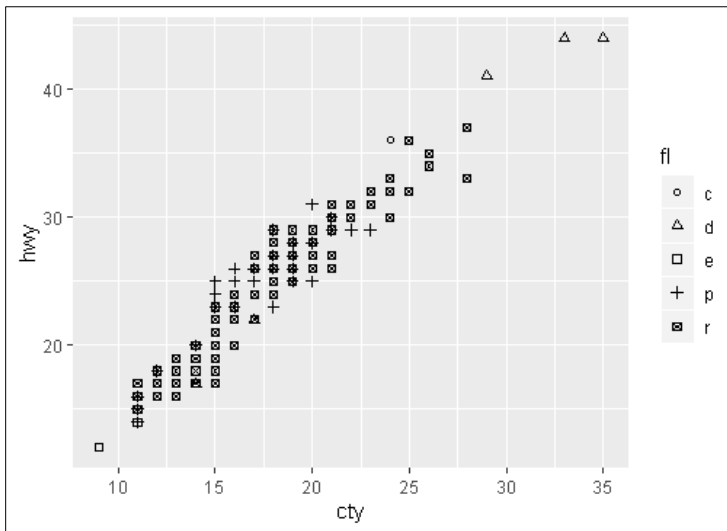


### 3. scale\_fill\_gradientn

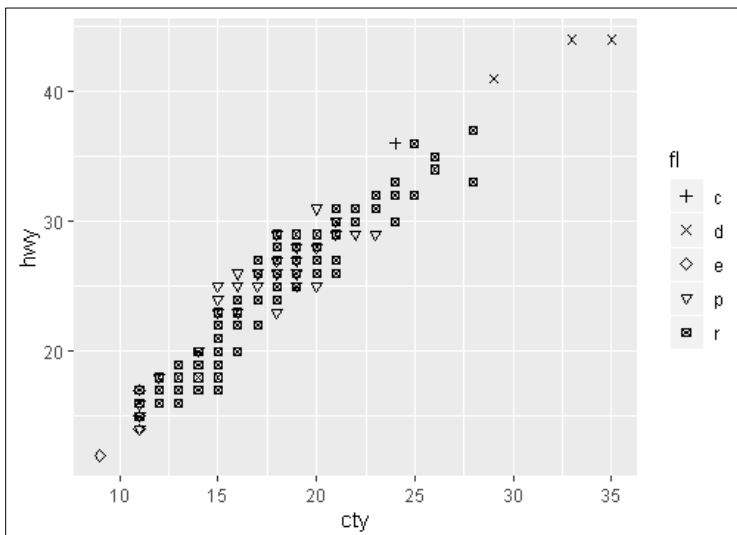


## Shape scales

### 1. scale\_shape

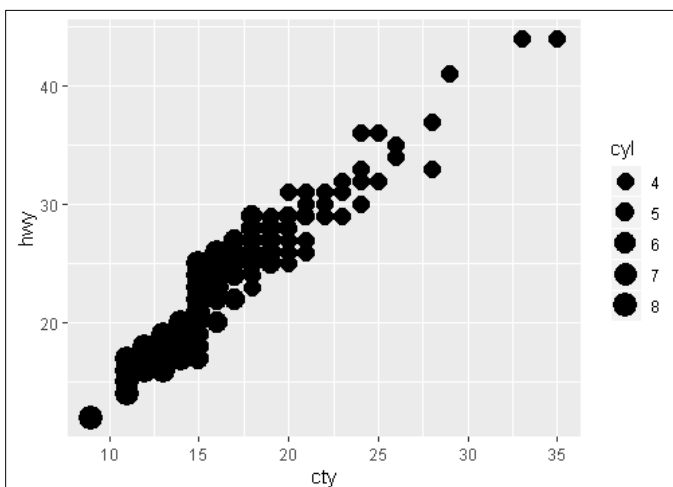


### 2. scale\_shape\_manual



## Size scales

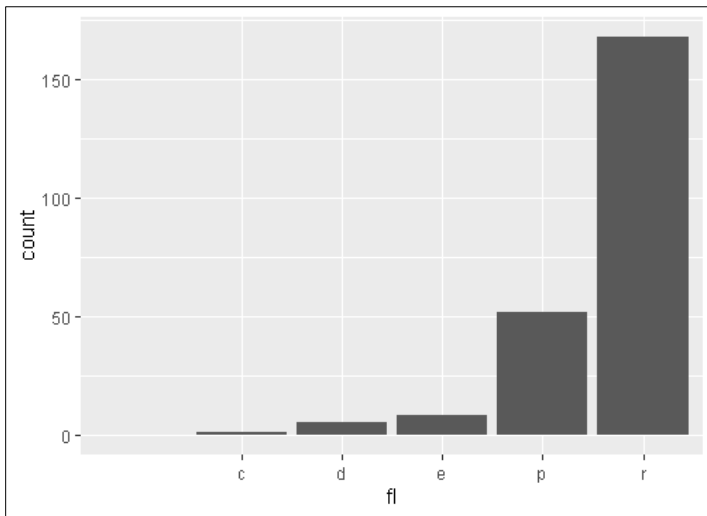
### 1. scale\_size\_area



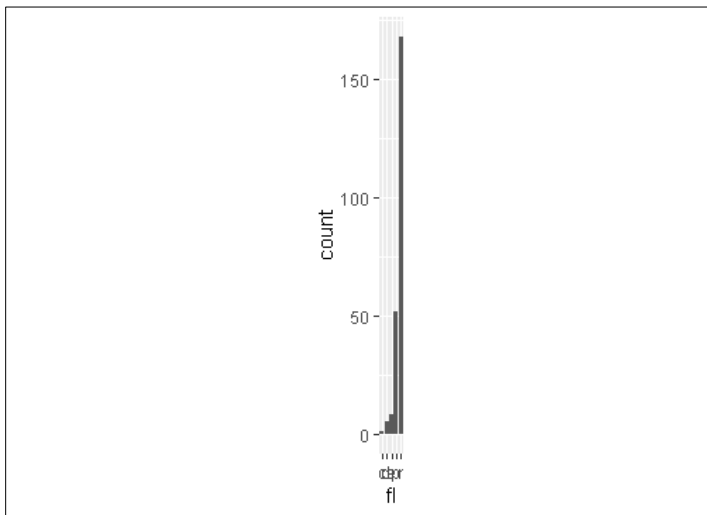


## Coordinate Systems

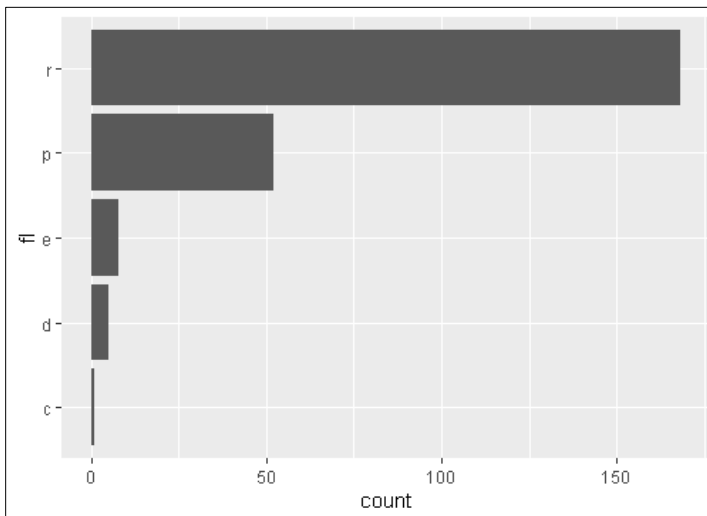
### 1. coord\_cartesian



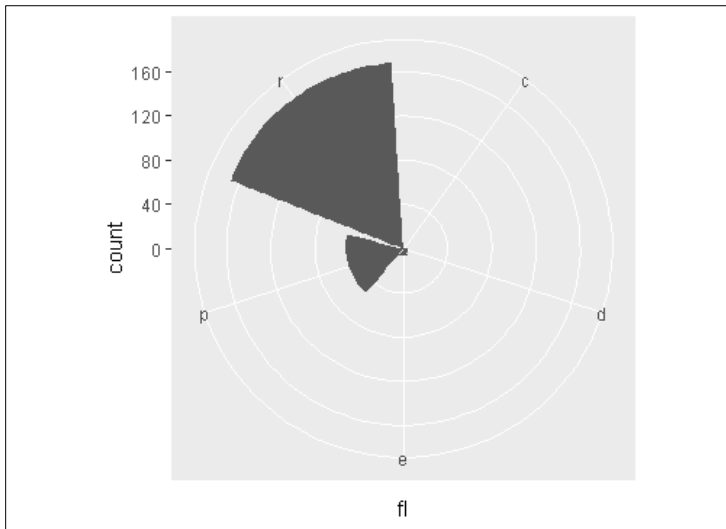
### 2. coord\_fixed



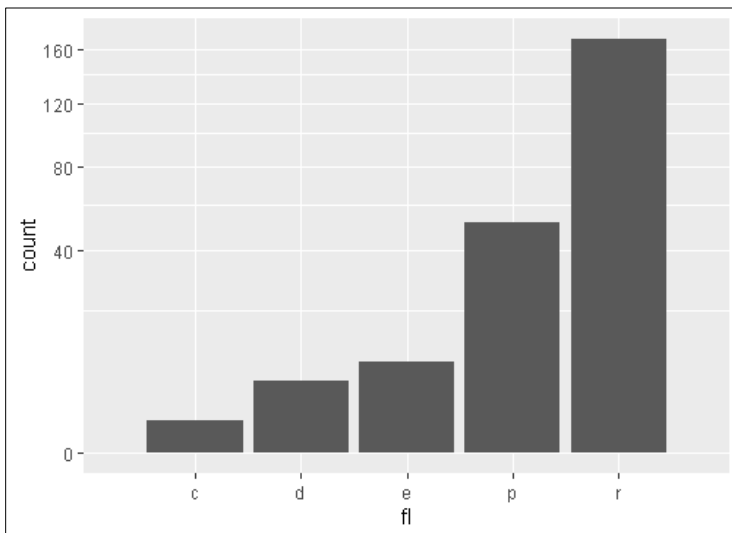
### 3. coord\_flip



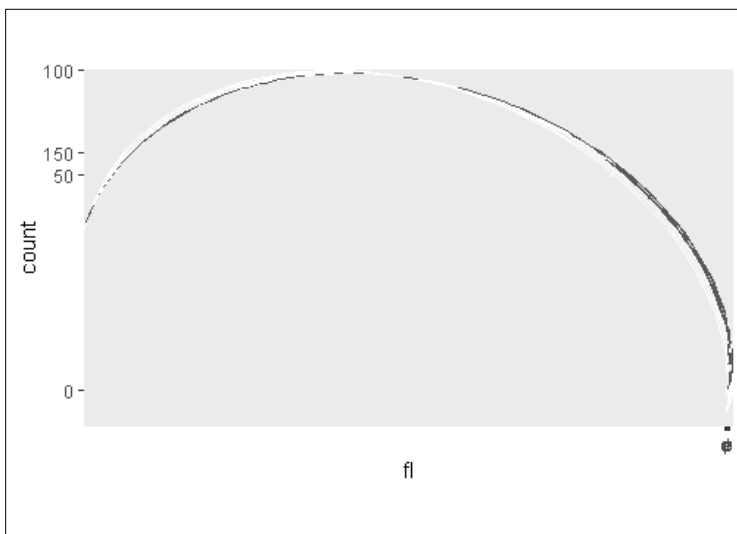
#### 4. coord\_polar



#### 5. coord\_trans

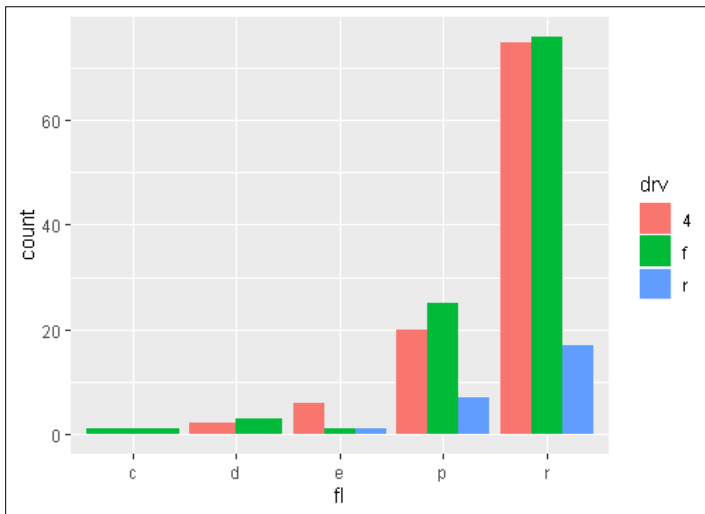


#### 6. coord\_map

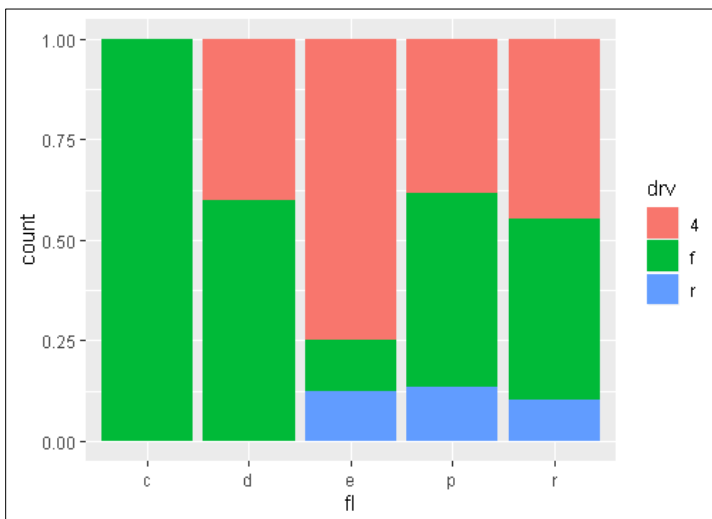


## Position Adjustments

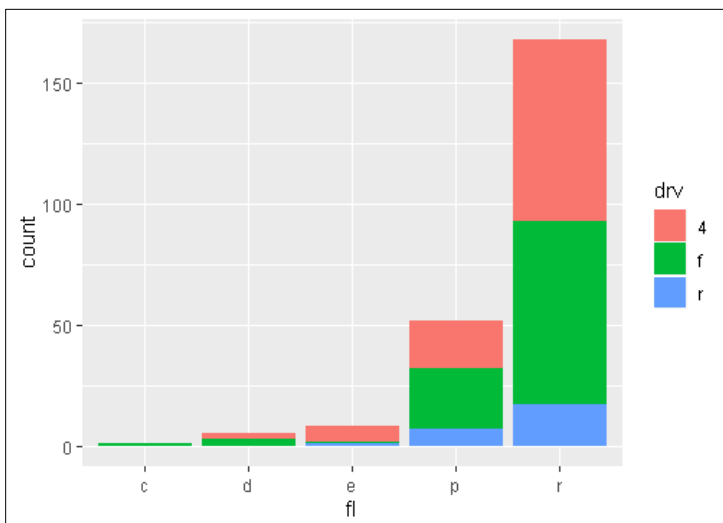
1. `geom_bar(position = "dodge")`



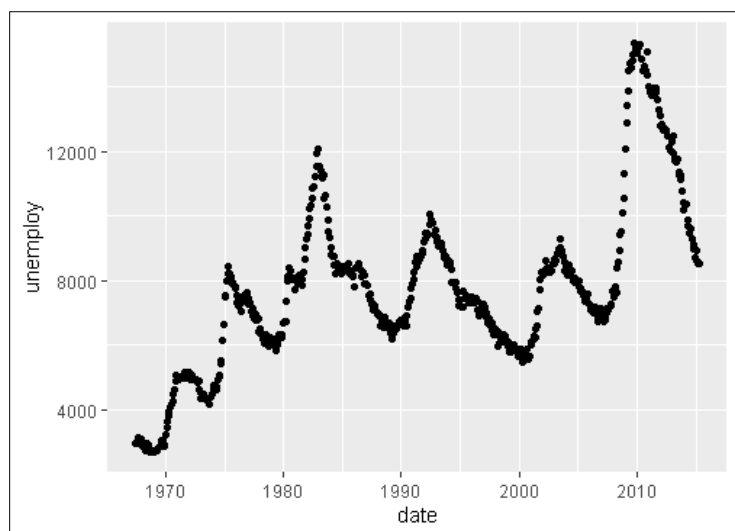
2. `geom_bar(position = "fill")`



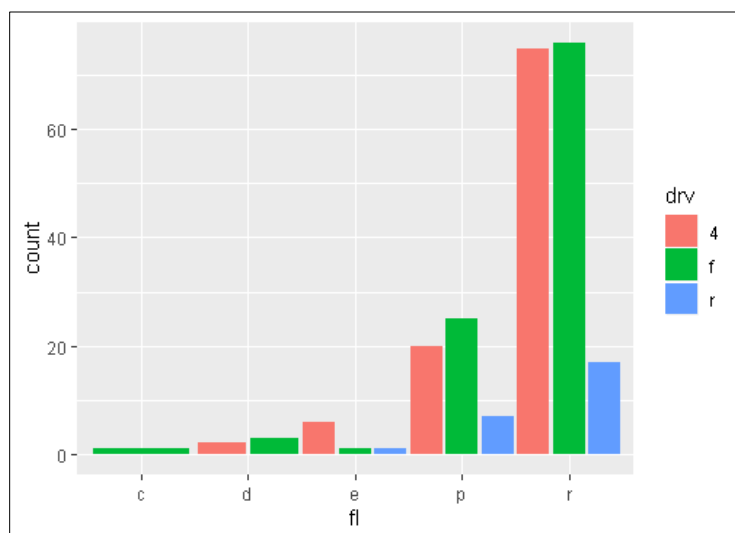
3. `geom_bar(position = "stack")`



4. `geom_point(position = "jitter")`

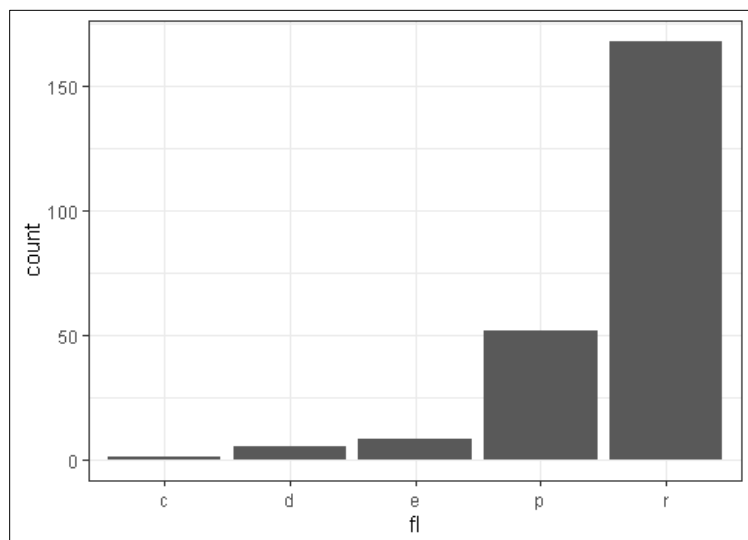


5. `geom_bar(position = position_dodge(width = 1))`

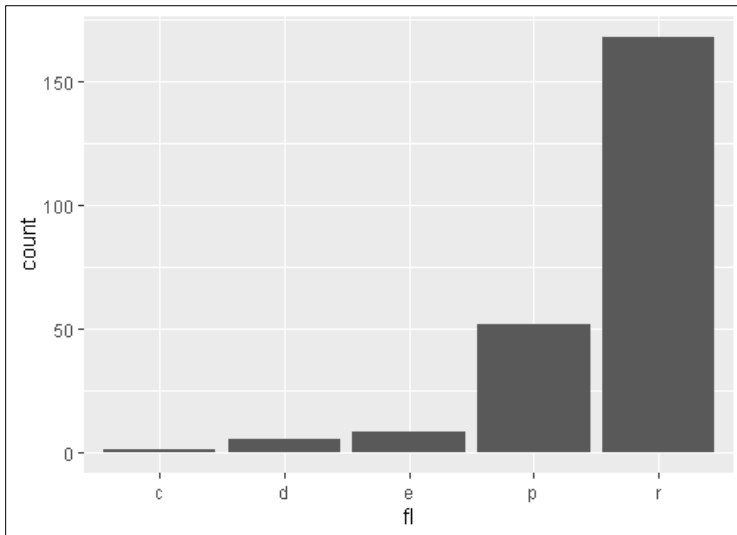


## Themes

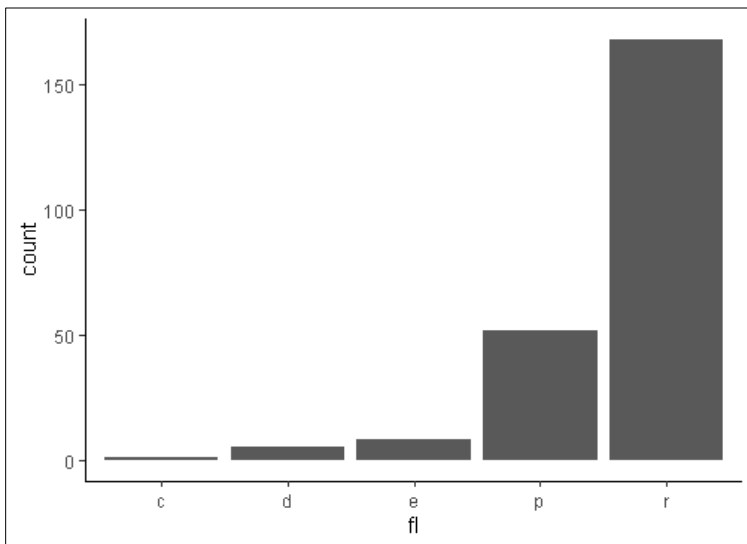
1. `theme_bw`



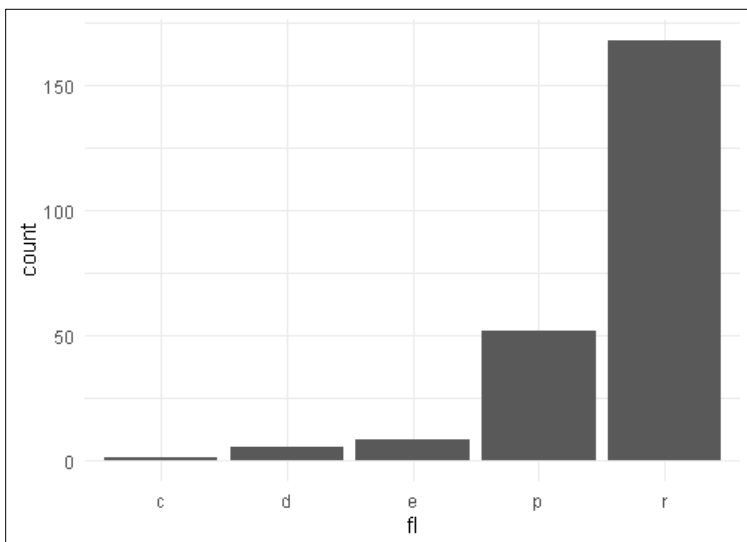
2. theme\_grey



3. theme\_classic

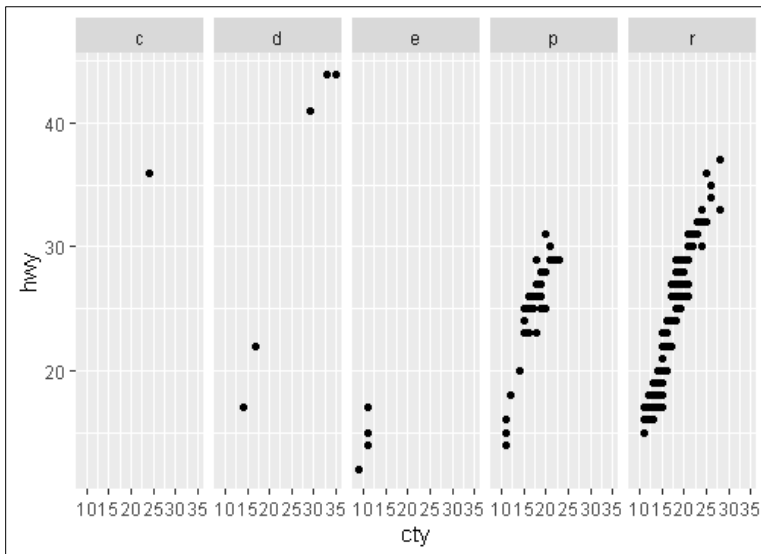


4. theme\_minimal

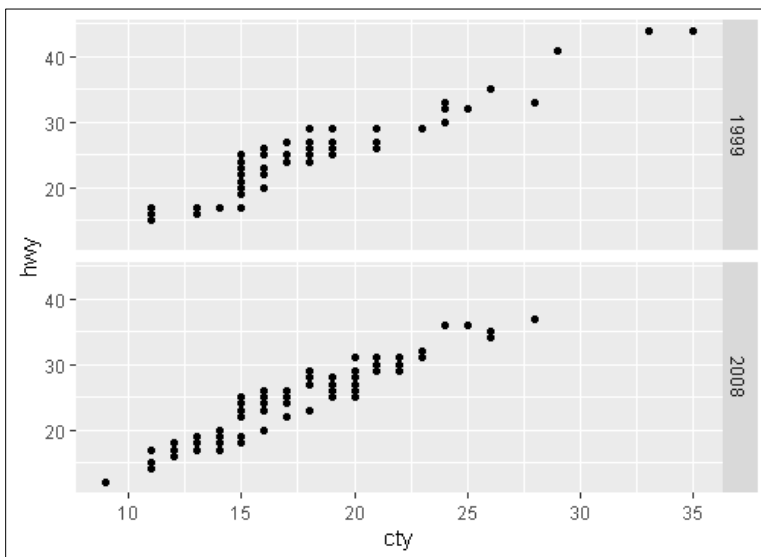


## Faceting

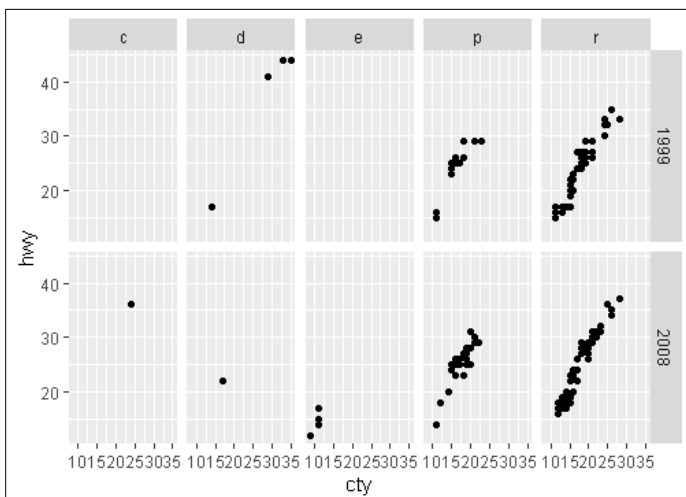
1. `facet_grid(. ~ fl)`



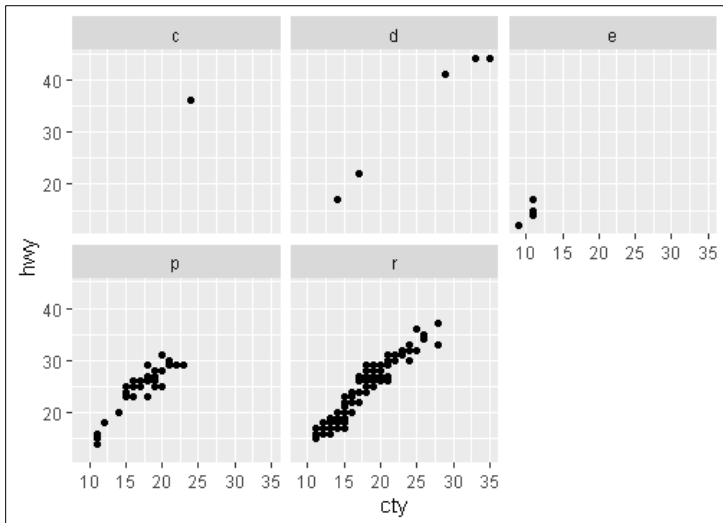
2. `facet_grid(year ~ .)`



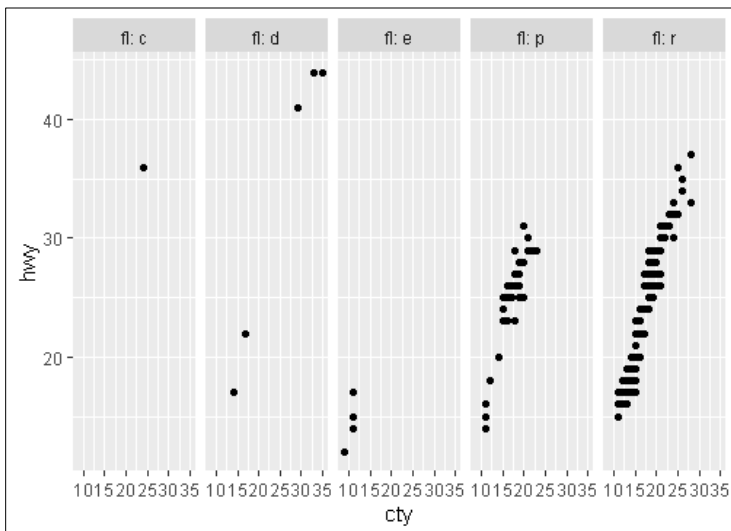
3. `facet_grid(year ~ fl)`



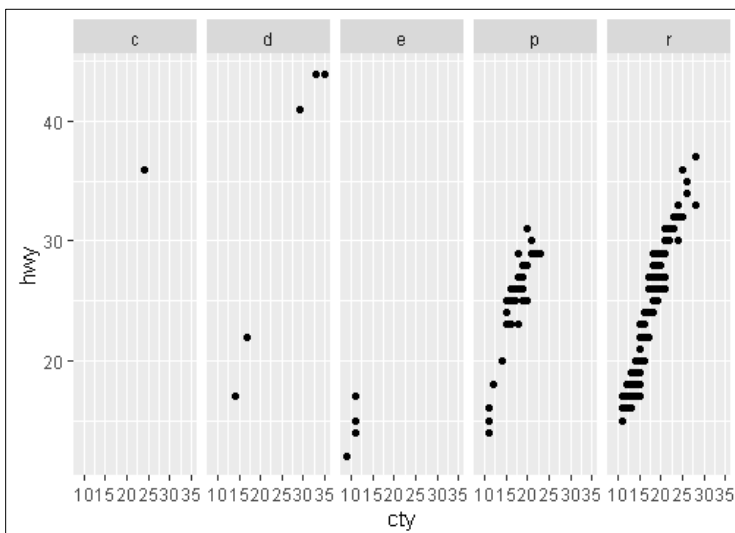
4. `facet_wrap(~ fl)`



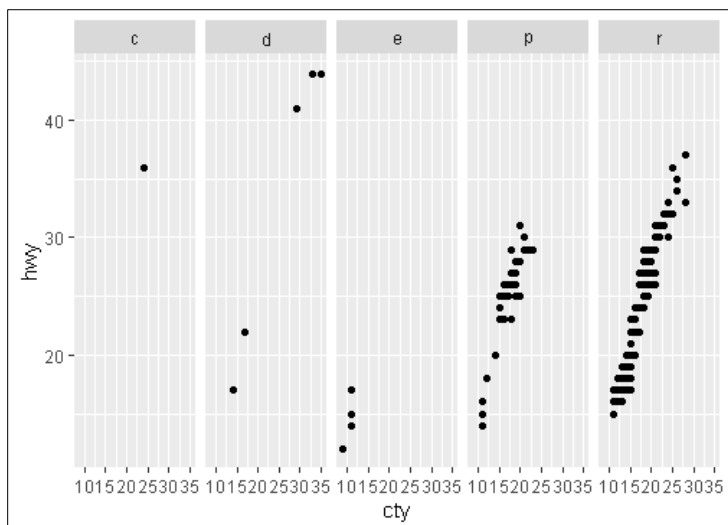
5. `facet_grid(. ~ fl, labeller = label_both)`



6. `facet_grid(. ~ fl, labeller = label_bquote(alpha ^ .(x)))`

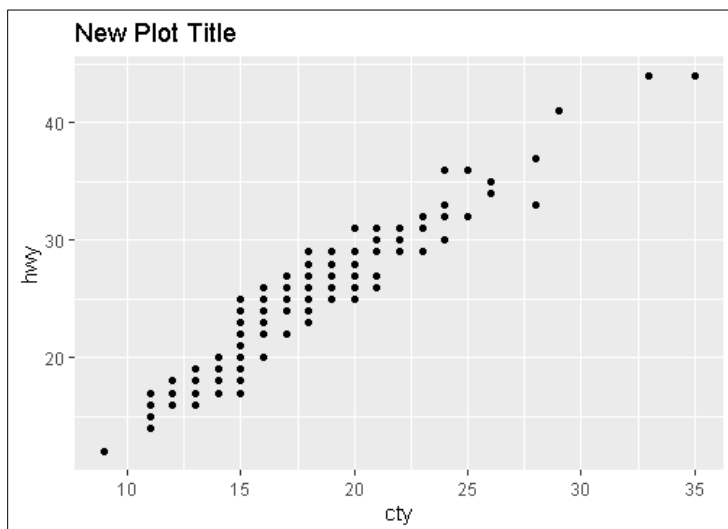


7. `facet_grid(. ~ fl, labeller = label_parsed) facet_grid`

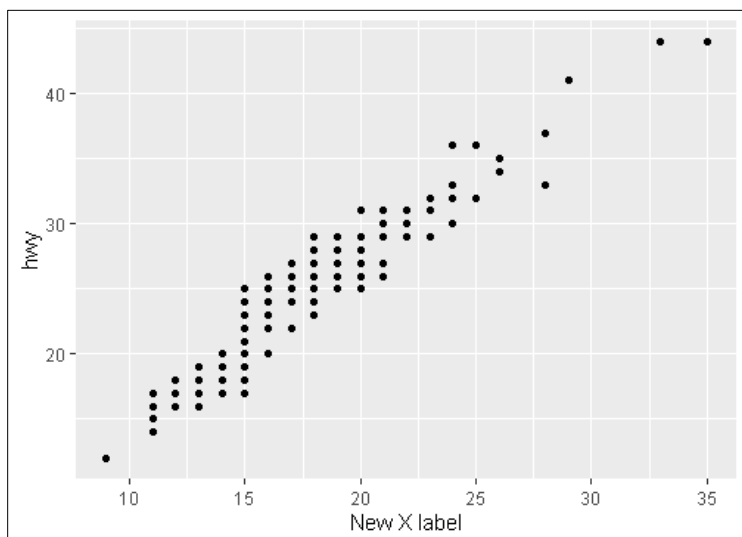


Labels

1. `ggtitle`

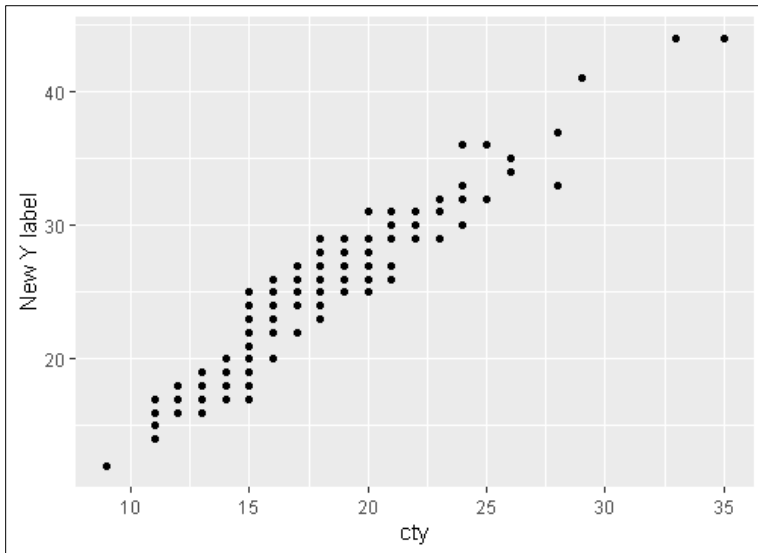


2. `xlab`

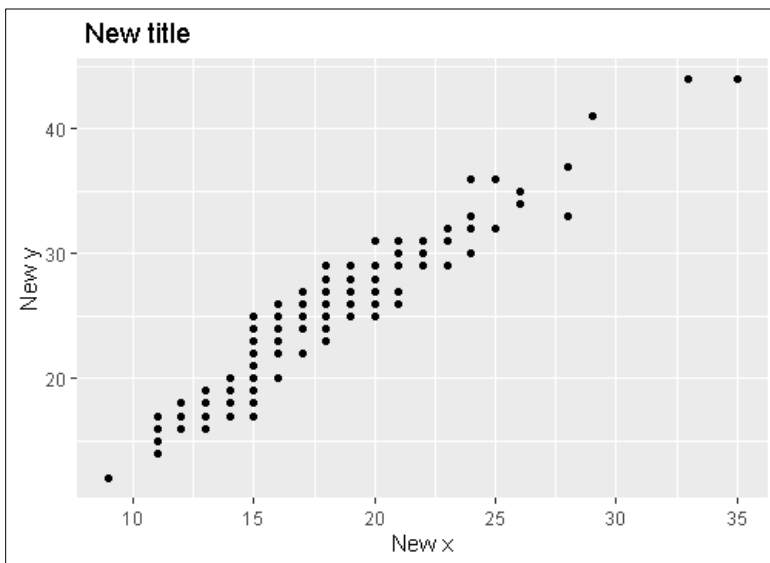




### 3. ylab

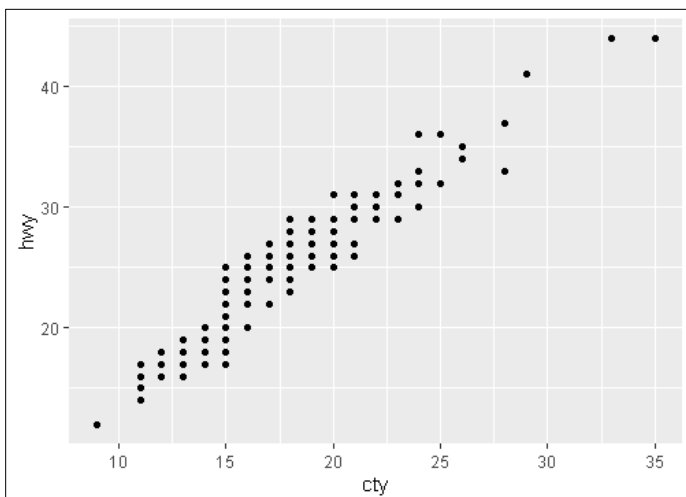


### 4. labs

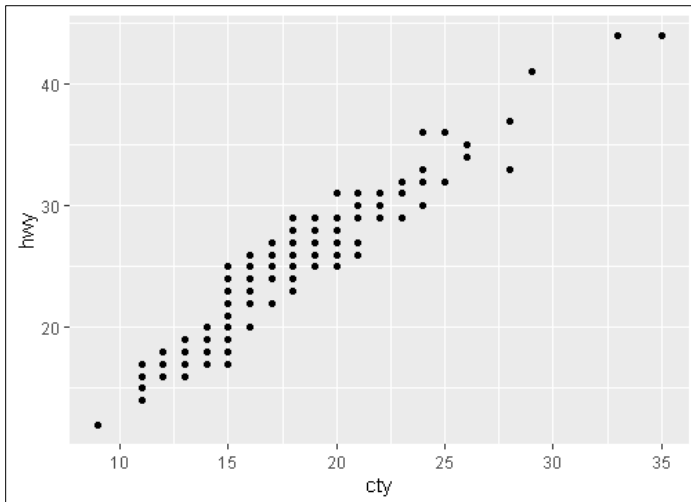


## Legends

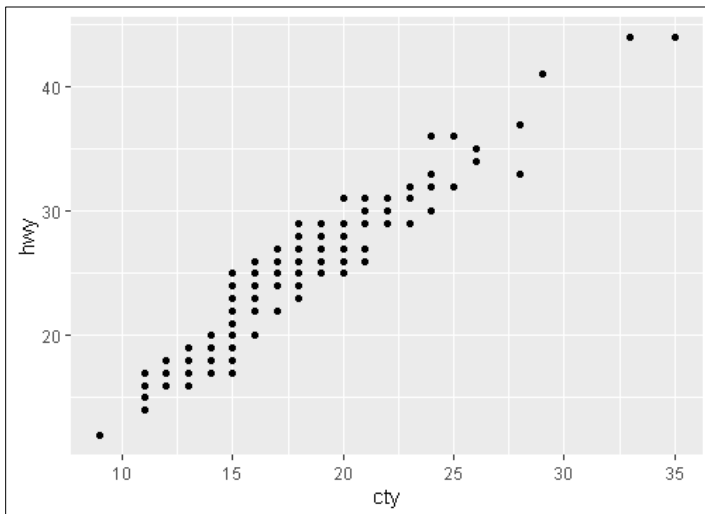
### 1. theme



## 2. guides

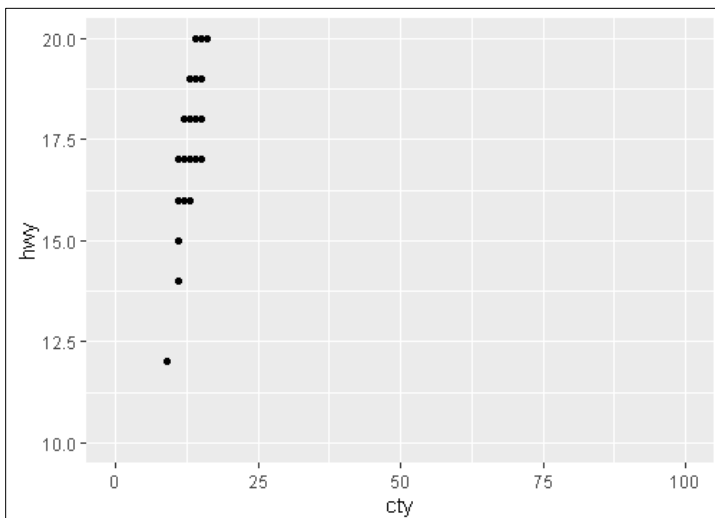


## 3. scale\_fill\_discrete

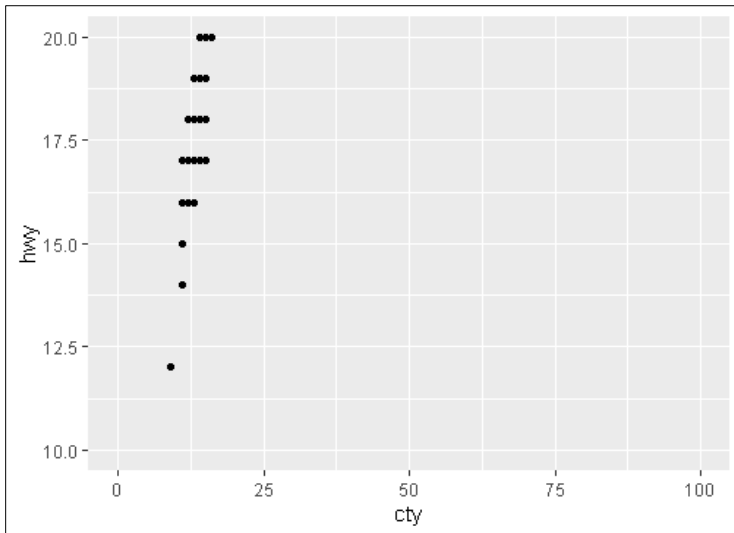


## Zooming

### 1. coord\_cartesian



## 2. xlim



## 3. scale\_x\_continuous

