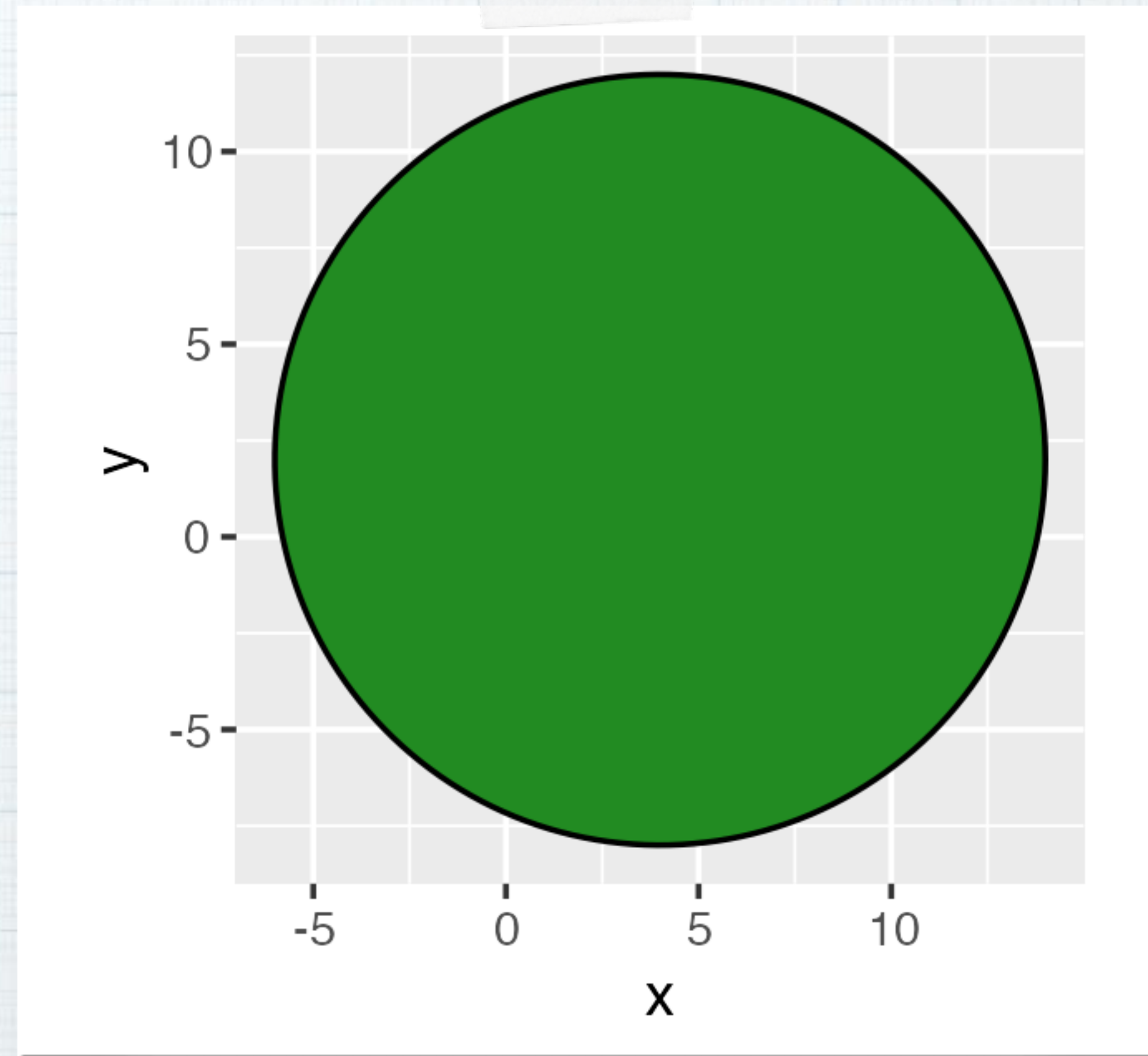


# DRAWING A CIRCLE

```
radius ← 10
x0 ← 4
y0 ← 2
angles ← seq(0, 2*pi, length.out = 200)

circle ← data.frame(
  x = cos(angles) * radius + x0,
  y = sin(angles) * radius + y0
)

ggplot(circle) +
  geom_polygon(aes(x, y),
    fill = 'forestgreen',
    colour = 'black') +
  coord_fixed()
```





# DRAWING A CIRCLE

```
# Wrap functionality in function
create_circle ← function(data, n) {
  angles ← seq(
    from = 0,
    to = 2*pi,
    length.out = n + 1
  )
  data.frame(
    x = cos(angles) * data$r + data$x0,
    y = sin(angles) * data$r + data$y0,
    data
  )
}
```

- Easier to reuse
- Easier to debug
- Easier to document