Nguyen-3

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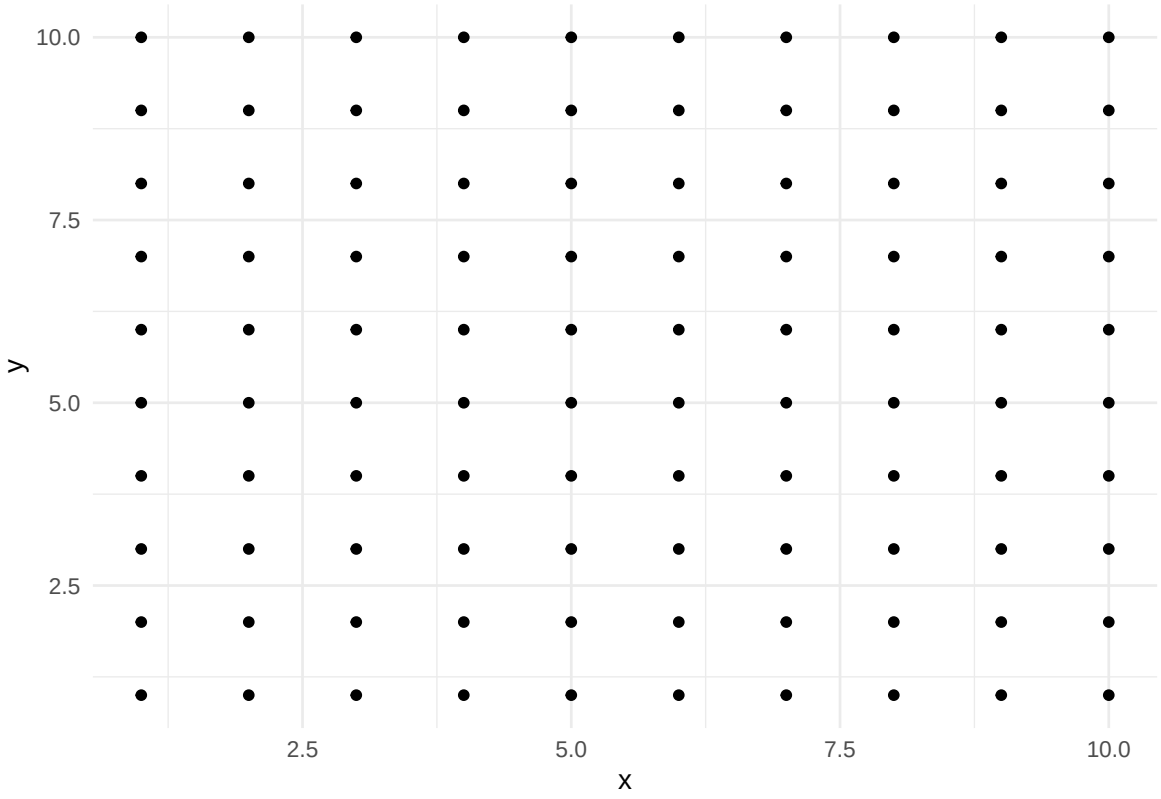
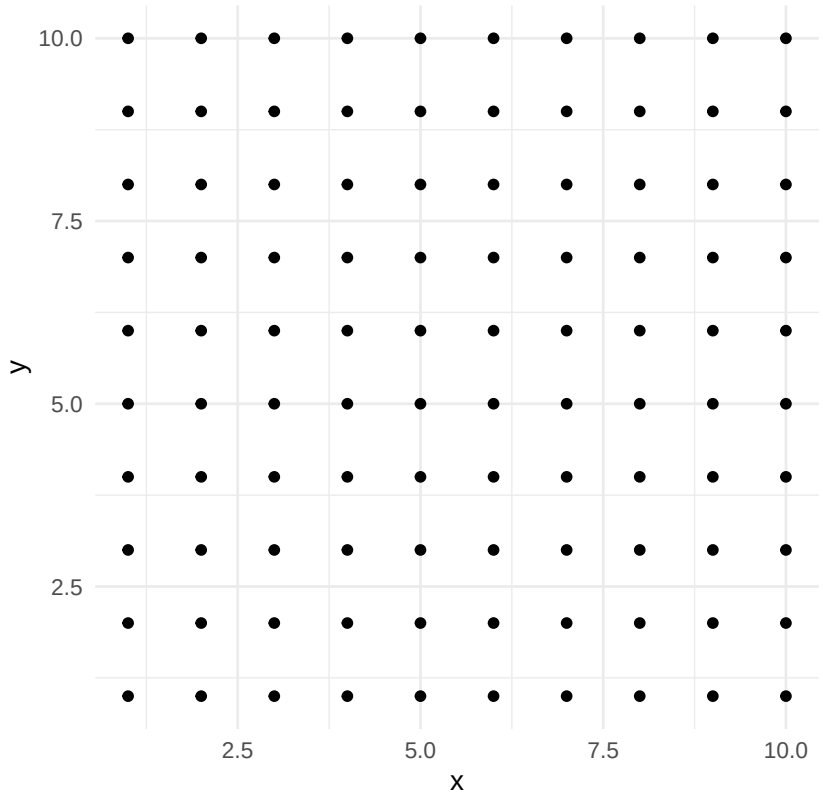
Homework 3

Question 1

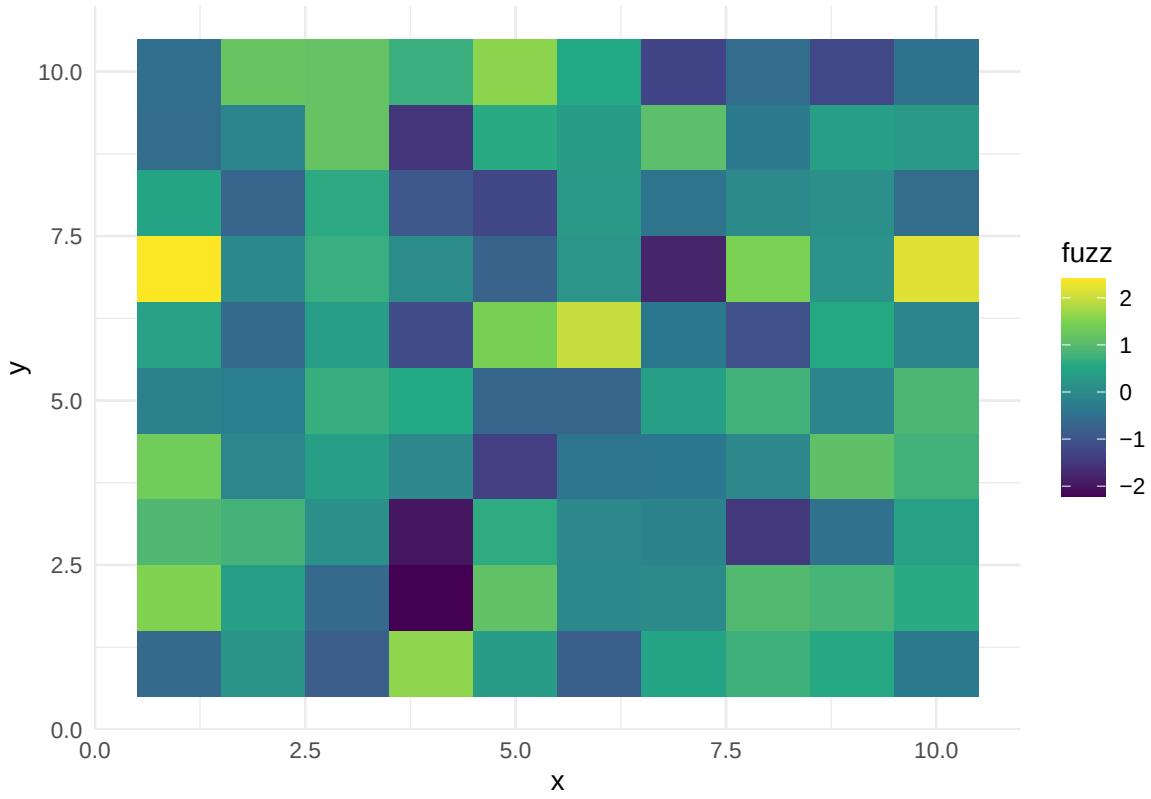
a.
```
library("tidyverse")

df <- expand.grid("x" = 1:10, "y" = 1:10)
ggplot(df, aes(x, y)) +
  geom_point() +
  theme_minimal()
```



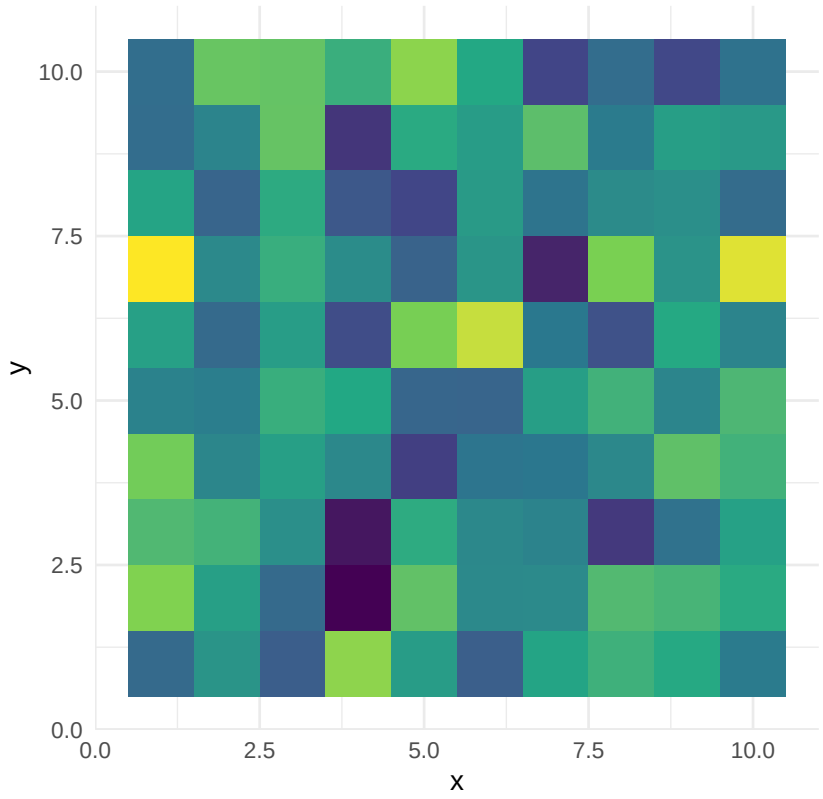
b.
```
ggplot(df, aes(x, y)) +
  geom_point() +
  theme_minimal() +
  coord_equal()
```



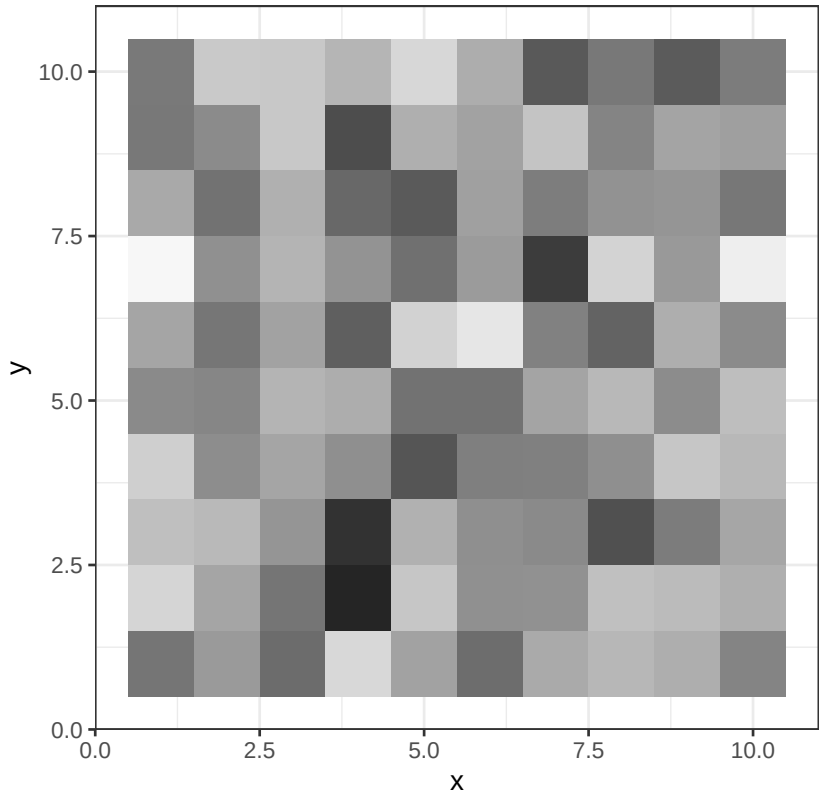
c.
```
set.seed(1)
fuzz <- rnorm(nrow(df))
ggplot(df, aes(x, y, fill = fuzz)) +
  theme_minimal() +
  geom_tile()
```



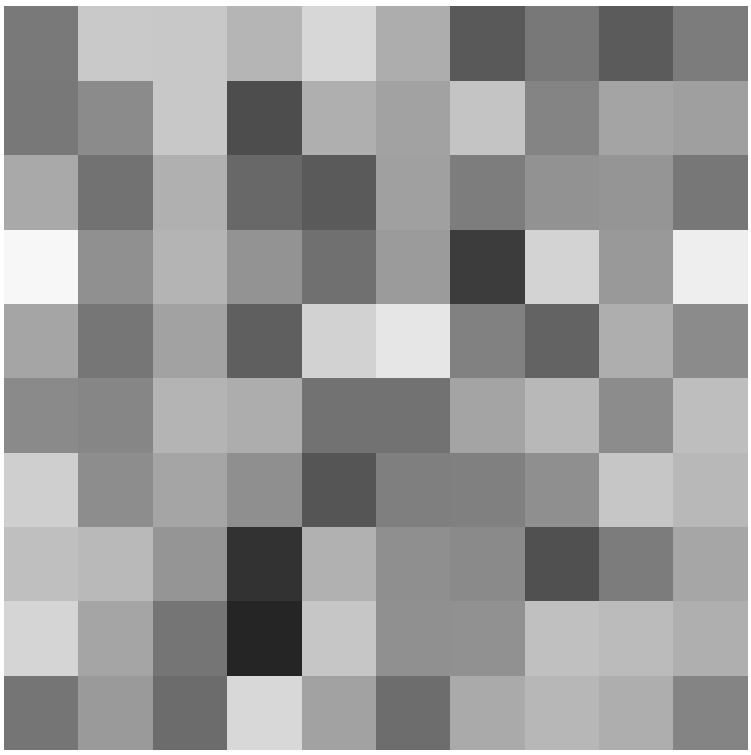
d.
```
set.seed(1)
fuzz <- rnorm(nrow(df))
ggplot(df, aes(x, y, fill = fuzz)) +
  theme_minimal() +
  geom_tile() +
  theme(legend.position="none") +
  coord_equal()
```



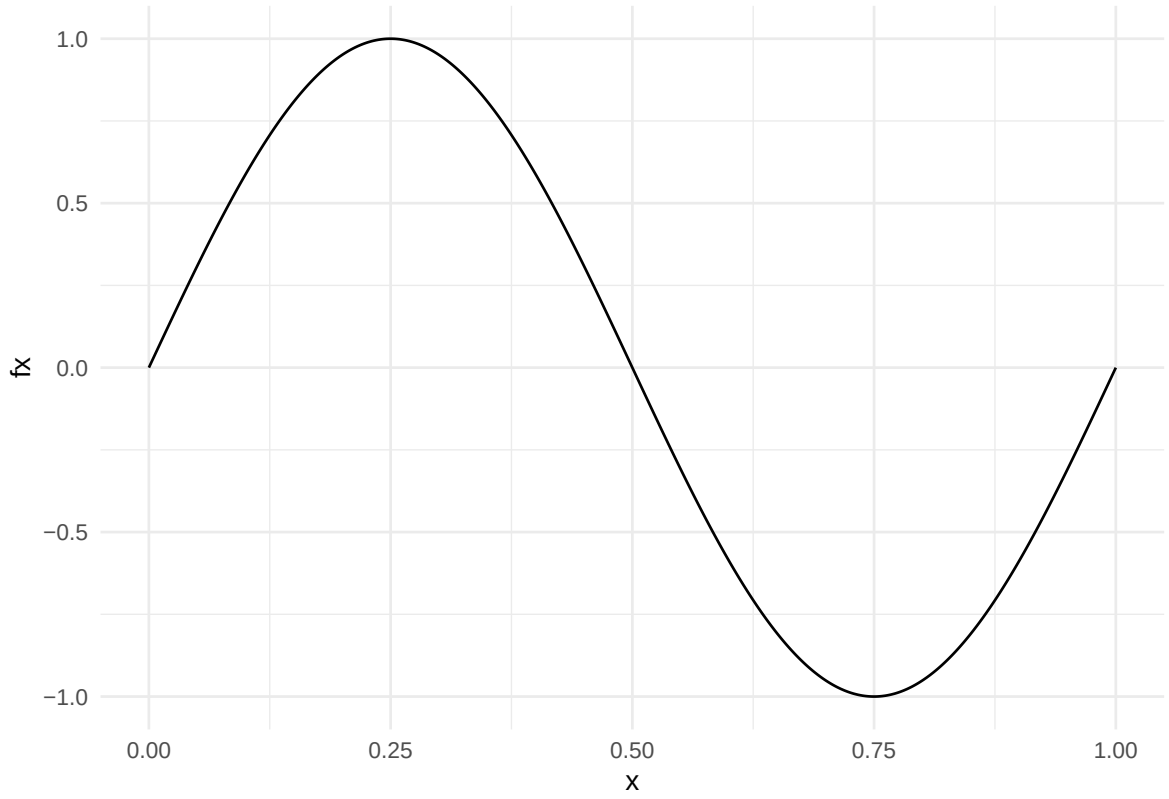
e.
```r
set.seed(1)
fuzz <- rnorm(nrow(df))
ggplot(df, aes(x, y, fill = fuzz)) +
  theme_bw() +
  geom_tile() +
  coord_equal() +
  theme(legend.position="none") +
  scale_fill_distiller(palette = "Greys")
```



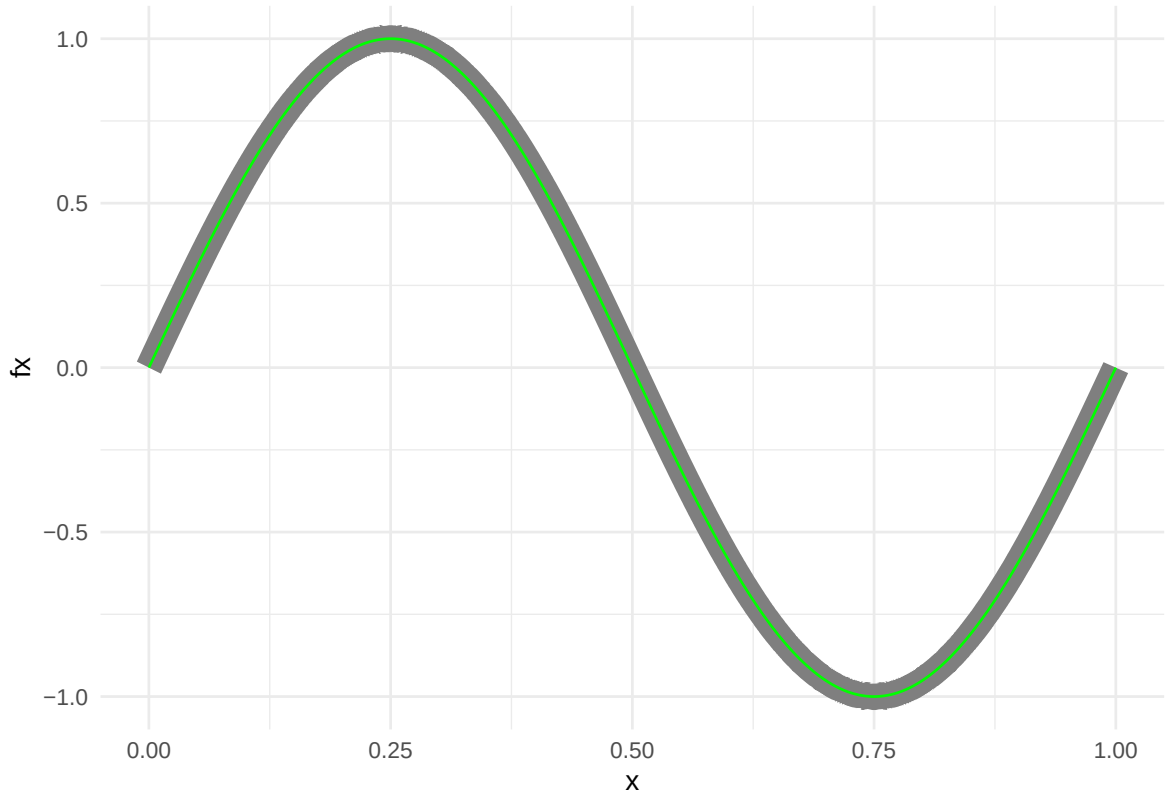
f.
```r
set.seed(1)
fuzz <- rnorm(nrow(df))
ggplot(df, aes(x, y, fill = fuzz)) +
  geom_tile() +
  coord_equal() +
  scale_fill_distiller(palette = "Greys") +
  ylab(NULL) +
  xlab(NULL) +
  theme_void() +
  theme(legend.position="none")
```



g.
```
x <- seq(0, 1, 1e-4)
fx <- sin(2*pi*x)
sine <- data.frame("x" = x, "y" = fx)
ggplot(sine, aes(x, fx)) +
  theme_minimal() +
  geom_line()
```



h.
```
x <- seq(0, 1, 1e-4)
fx <- sin(2*pi*x) # wrong geom!!!
sine <- data.frame("x" = x, "y" = fx)
ggplot(sine, aes(x, fx)) +
  theme_minimal() +
  geom_line(color = "gray50", size = 5) +
  geom_line(color = "green")
```


1.0
0.5
0.0
−0.5
−1.0
fx
0.00
0.25
0.50
0.75
1.00
x