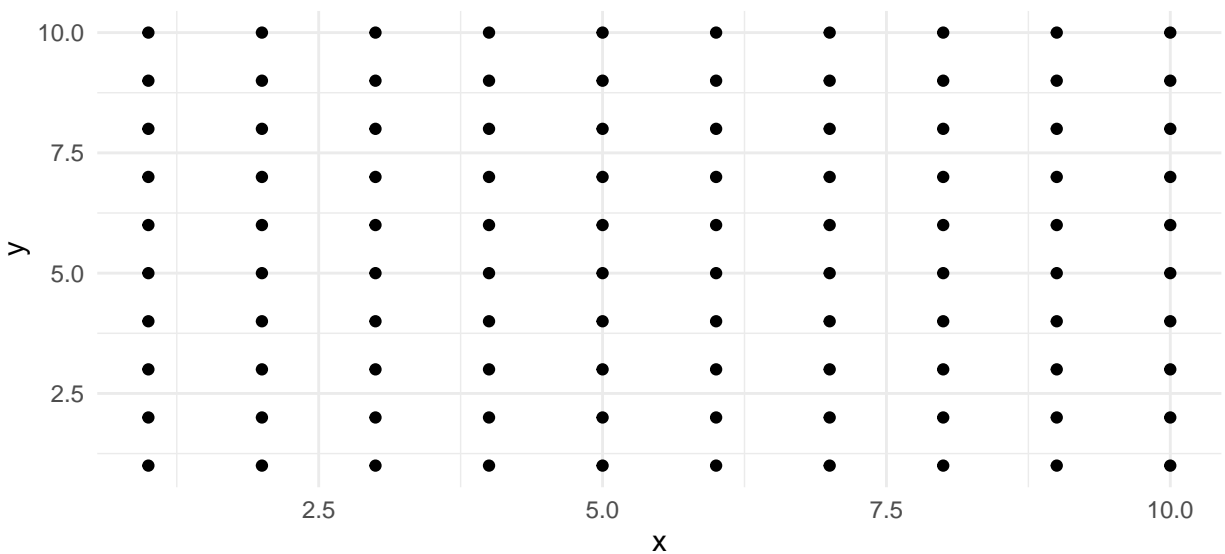


### Homework 3

1a.

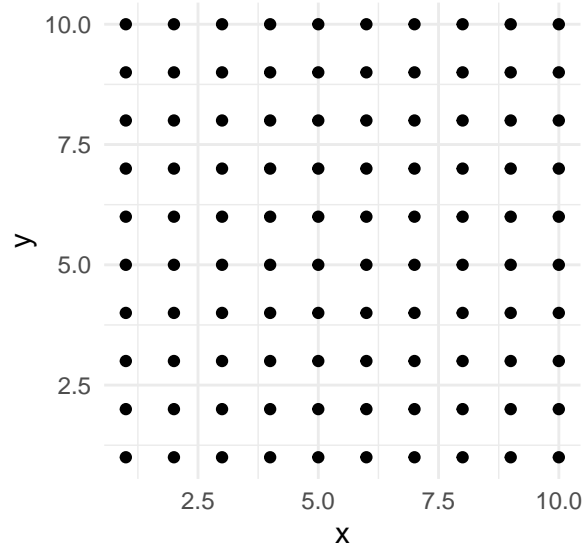
```
library("tidyverse")

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



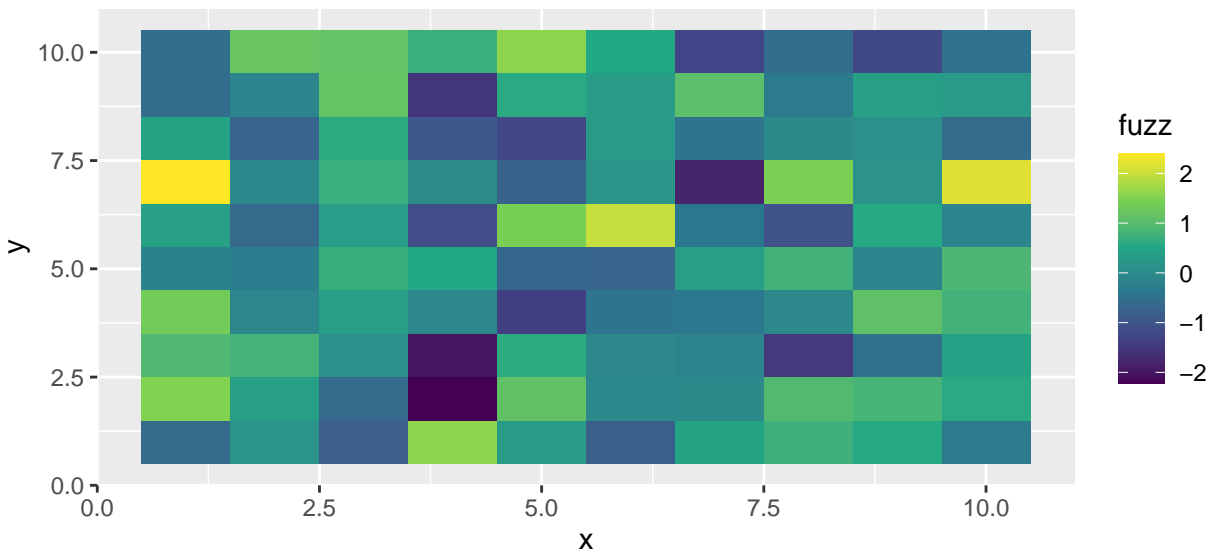
1b.

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



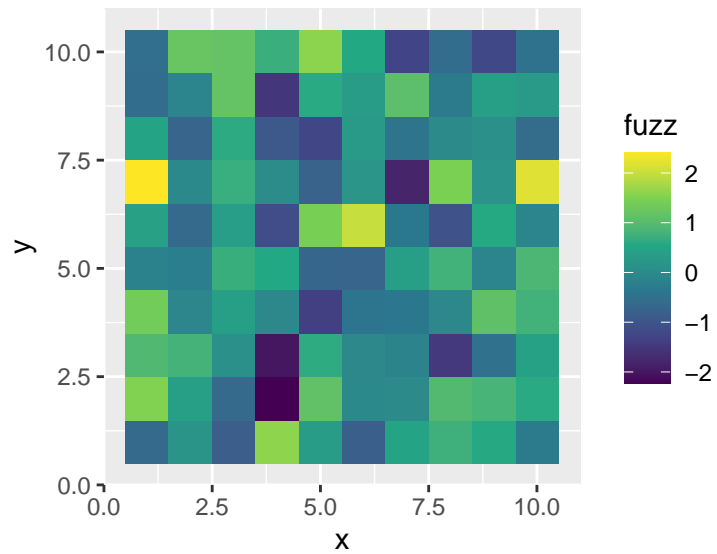
1c.

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



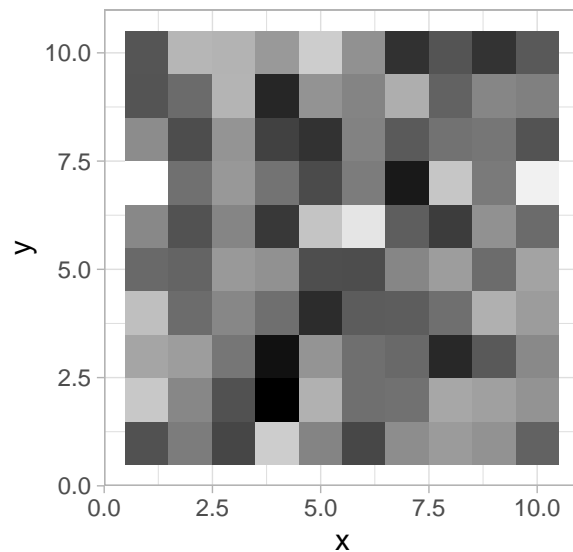
1d.

```
ggplot(df,aes(x,y)) + geom_raster(aes(fill=fuzz)) + coord_equal()
```



1e

```
#ggplot(df,aes(x,y)) + geom_raster(aes(fill=fuzz)) + scale_fill_gradient2(low="white", high="black") co
ggplot(df, aes(x = x, y = y)) +
  geom_raster(aes(fill = fuzz)) +
  scale_fill_gradient(low = "black", high = "white") +
  coord_equal() +
  theme_light() +
  theme(legend.position = "none")
```



1f.

```
ggplot(df, aes(x = x, y = y)) +
  geom_tile(aes(fill = fuzz)) +
  scale_fill_gradient(low = "black", high = "white") +
  coord_equal() +
  theme_void() +
  theme(legend.position = "none")
```

