

```
In [12]: library(testthat)
library(ggplot2)
```

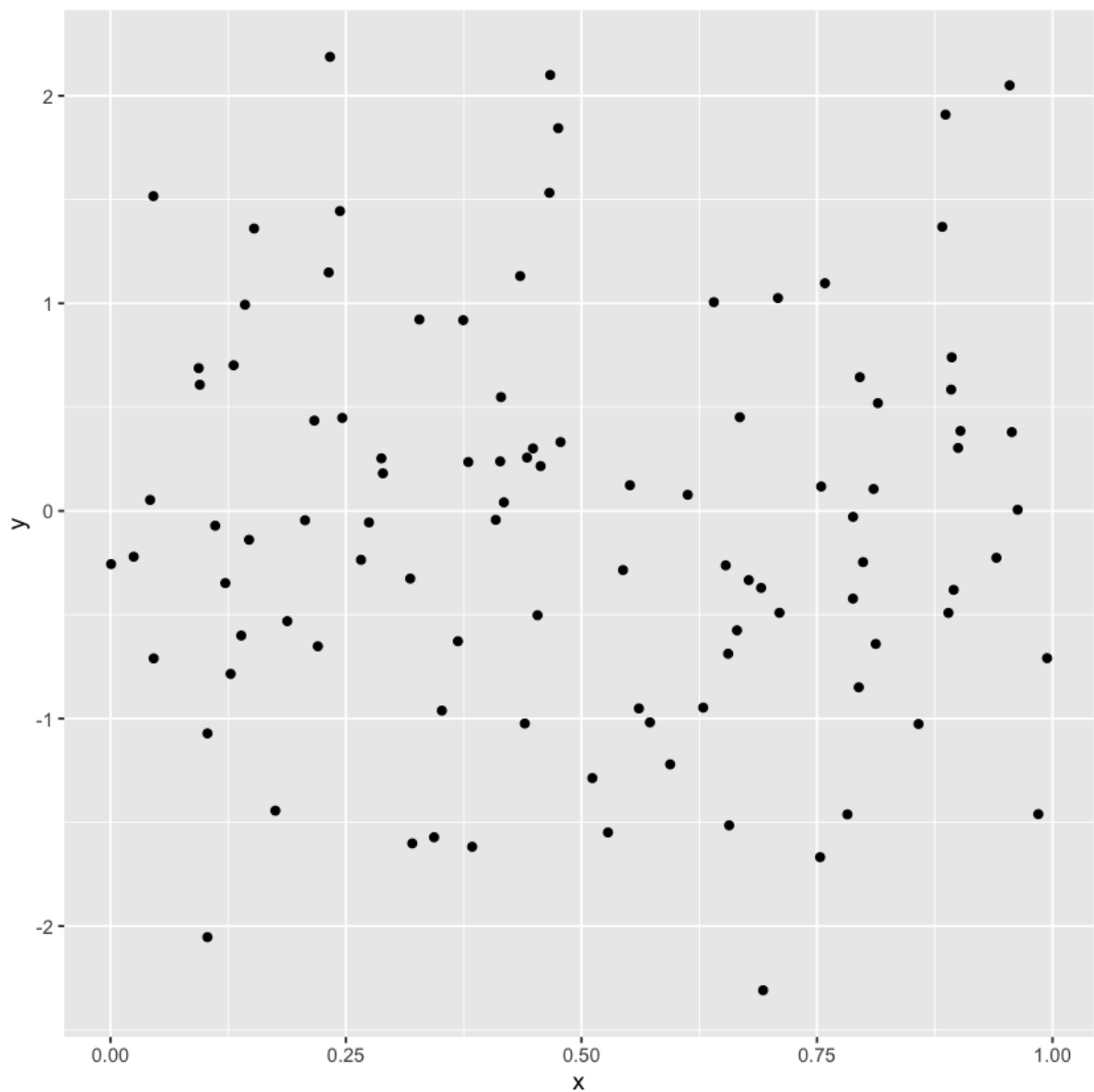
Question 1. Assign `x` to the smallest prime number.

```
In [3]: x <- 2 # SOLUTION
```

```
In [ ]: . = ottr::check("tests/q1.R")
```

Question 2. Visualize the answer

```
In [33]: set.seed(123) # SEED
# BEGIN SOLUTION NO PROMPT
x <- runif(100)
y <- rnorm(100)
data = data.frame(x, y)
ggplot(data, aes(x=x, y=y)) +
  geom_point()
# END SOLUTION
. = " # BEGIN PROMPT
plt.plot(...);
"; # END PROMPT
```



This cell is not part of a question.

```
In [34]: y = 3
```

Question 3. Define `square` and assign `nine` to 3 squared.

```
In [37]: square = function(x) {  
          y = x * x # SOLUTION  
          return(y) # SOLUTION  
        }  
  
        nine = square(3) # SOLUTION
```

```
In [ ]: . = ottr::check("tests/q3.R")
```

Question 4. What does equilateral mean?

Type your answer here, replacing this text.

SOLUTION: Having equal side lengths.

```
In [14]: # this isn't part of a question  
        # it's here to make sure that we get a MD cell above to close the export  
        # of question 4
```

Question 5. Approximate the area and circumference of a circle with radius 3.

```
In [50]: pi = 3.14  
        if (TRUE) {  
          # BEGIN SOLUTION  
          radius = 3  
          area = radius * pi * pi  
          # END SOLUTION  
          print(paste0('A circle with radius', radius, 'has area', area))  
        }  
  
        circumference = function(r) {  
          # BEGIN SOLUTION NO PROMPT  
          return(2 * pi * r)  
          # END SOLUTION  
          " # BEGIN PROMPT  
          # Next, define a circumference function.  
          "; # END PROMPT  
        }
```

```
[1] "A circle with radius3has area29.5788"
```

```
In [16]: # This question has no tests.
```

Question 6. Write something

This question has a custom prompt below, so that prompt should be in the output. It also has no solution!

Write your thing here.

SOLUTION: some thing

Question 7: What is the answer?

Type your answer here, replacing this text.

SOLUTION: 42

Question 8: Test intercell seeding by generating 10 random $N(4, 2)$ numbers.

```
In [59]: set.seed(42) # SEED
         z = rnorm(10, 4, 2) # SOLUTION
         z
```

```
6.74191689429334 2.87060365720782 4.72625682267468 5.26572520992208
4.808536646282 3.78775096781703 7.02304399487788 3.8106819231738
8.03684742775408 3.87457180189516
```

```
In [ ]: . = ottr::check("tests/q8.R")
```

You're done!