

# set.seed() issue in R

## Issue with set.seed():

Setting the seed allows others to reproduce the results that you obtained, if it was based on random numbers (i.e. randomly splitting the training and test data)

However, you may have done everything correctly, and are still getting a different value. There was a known issue with the random number generation a few years ago. The issue is supposed to be fixed in R version 3.6.0 and later, but apparently that isn't the case.

I encourage you to run the following two lines of code and record what 5 random integers are being generated by R:

```
set.seed(1)
```

```
sample.int(100,5)
```

## Action items for you:

- If you are using R version before 3.6.0, update your R version, and re-run this experiment.
- If you are using R version 3.6.0 and later, and got 68, 39, 1, 34, 87, you are good to go. There is nothing wrong with your random number generation.
- If you are using R version 3.6.0 and later and got 27, 37, 57, 89, 20, you should type `RNGkind(sample.kind = "Rejection")` before any line you use `set.seed()`. You should get the other set of 5 numbers: 68, 39, 1, 34, 87. So anytime you use `set.seed`, you need to type `RNGkind(sample.kind = "Rejection")` on the previous line.
- If you got a different set of 5 numbers something else is wrong with your code.

## A little more explanation:

1. For R versions 3.6.0 and later, you are able to specify if you want to use the "Rejection" sampler or the old "Rounding" sampler to generate random numbers.
2. Type `RNGkind(sample.kind = "Rejection")` or `RNGkind(sample.kind = "Rounding")` for needed sampler (type this on a line before using the `set.seed()` function).

3. You should use the rejection sampler. The rounding sampler should only be used if you want to reproduce results that used R versions before 3.6.0.
4. Based on the documentation, the rejection sampler should be the default for versions 3.6.0 and later. However, a few of you reported getting a different set of numbers; a possible reason is that the rounding sampler is the default for you. I don't know why.
5. If you use R versions before 3.6.0, I advise you to update.
6. All my examples are worked using version 3.6.0 with the rejection sampler.