

Random Numbers for Student Submissions

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Generating Random Numbers

We have generated five digit random numbers for everyone. Using the function `sample()`, we created a vector of values that are then coerced into a matrix with 5 columns and the number of rows equal to the number of students enrolled in the course.

Before calling the `sample()` function, we set the “seed”. As it turns out R does generate pseudo-random numbers. Using the computer clock, R selects pre-defined random numbers in a table based on time when the line is run by R. By setting the seed, we generate the same set of random numbers each time the function is called. This is useful because I don’t want to create new numbers everytime I run the code – then we would all be confused about who has what number!

```
set.seed(444)
rnumbers = matrix(sample(10000:99999, 5* enrollment),
                  nrow=enrollment, ncol=5, byrow=T)
```

Then, we combined the random numbers with our roster, so each of you have been assigned 5 of these random numbers.

How to use your random numbers

For selected assignments, please avoid putting your name on the submission and include ONE of the random numbers (Table 1). It doesn’t matter which one, but I have noticed that if you use a simple one, I might be able to match the number with the person. So, I recommend changing which number you use at various times.

Some Probability Questions

Question: What are the chances that two or more people might have the same random number? Answering this is something taught in a probability course, which provides a foundation for all statistics.

Table 1: Random Numbers for EA30, Fall 2020

	First	Last	1	2	3	4	5
1	Nikodem	Bisaga	87666	33952	47801	79207	28554
2	Anna	Burns	96640	24942	68525	68925	27531
3	Emma	Duggleby	94361	23574	84998	63102	51050
4	Isabel	Evans	40809	38211	80470	17400	31569
5	Jacob	Greene	97517	53220	19033	39146	86197
6	Owen	Hoffsten	56149	22237	83891	11895	49719
7	Claire	LeBlanc	21072	87336	54360	40258	71214
8	Christina	Marsh	19890	41571	37499	33528	52355
9	Olivia	McGrath	88963	92675	99102	47528	69615
10	Sarah	Meilinger	96643	72042	82173	41086	28402
11	Tramy	Nguyen	40740	11786	99315	62792	84947
12	Vivianna	Plancarte	87609	36621	45393	30799	70696
13	Lila	Rubin	32008	89012	14844	60318	42626
14	Katy	Swiere	13344	54998	63009	63285	16638
15	Eleanor	Tahbaz	60081	64750	96416	64231	50597
16	Melia	Waring	96481	65057	96129	33563	17048
17	Bryan	Williams	74858	12717	86090	33087	88600