Software Tools, R - Homework3

Due date : 30 Dec 2020, 23:59

Objectives

- Function
- Condition Statments
- Loops

Questions

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1 - A dependent function chain is defined as $h(x) = \frac{log(x)-1}{\sqrt{x}}$, $g(x) = e^{\sqrt{h(x)}}$ and $f(x) = sin(g(x))^{cos(g(x))}$. Create a function and solve $f(x)$ for each **x <- 4:250**. Print and **plot**$f(x)$.

```r
exeedence <- function() {
x <- 4:250
# Fill here
plot(fx)
}
```

<!-- rnb-source-end -->

<!-- rnb-chunk-end -->

<!-- rnb-text-begin -->

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2 - Create a function. Inside;

- Create **n** sizes random **x** vector which starts with minimum (**min**) and ends maximum (**max**
- Define a **threshold**. *(for example: my_threshold <- 500)*
- Find how many values in **x** vector are greater than the threshold. (you can assign as **big_numbe
- If there are no any **big_numbers**, print a sentence like 'There is no big number'

```
  - Else print the size (or lenght) of **big_numbers**


<!-- rnb-text-end -->


<!-- rnb-chunk-begin -->


<!-- rnb-source-begin eyJkYXRhIjoiYGBgclxuYGBgclxuZXhlZWRlbmNlIDwtIGZ1bmN0aW9uKG4sIG1pbiwgbWF4LCB0aHJlc
```

```r
```r
exeedence <- function(n, min, max, threshold) {
# Fill here
# You can use runif() function
}
```


<!-- rnb-source-end -->

<!-- rnb-chunk-end -->

<!-- rnb-text-begin -->

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3 - Create a function that calculates the sum of each digit of any number *(For instance, sum of dig

<!-- rnb-text-end -->

<!-- rnb-chunk-begin -->

<!-- rnb-source-begin eyJkYXRhIjoiYGBgclxuYGBgclxuc3Vtb2ZkaWcgPC0gZnVuY3Rpb24oeCkgeyBcbiMgRmlsbCBoZXJlXG
```

```r
```r
sumofdig <- function(x) {
# Fill here
# You can use strsplit() function
}
```

```

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***For questions or problems, please use Ninova***

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*I inspired from Ismail SEZEN*

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