

# EU StudyAssist

R for Research Test 1 (26th July 2024)

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## Instructions

Wait until WEBR STATUS is Ready. Ideally it takes less than a seconds. You have twenty minutes to answer the questions. Do not reload the page. If you, you lose your progress. **Good luck!!**

## Questions

1. create a vector of even numbers from 200 to 400 and save it in a variable called `my_even_number`. Print your result

```
my_even_number <- seq(200, 400, 2)
my_even_number
```

```
[1] 200 202 204 206 208 210 212 214 216 218 220 222 224 226 228 230 232 234
[19] 236 238 240 242 244 246 248 250 252 254 256 258 260 262 264 266 268 270
[37] 272 274 276 278 280 282 284 286 288 290 292 294 296 298 300 302 304 306
[55] 308 310 312 314 316 318 320 322 324 326 328 330 332 334 336 338 340 342
[73] 344 346 348 350 352 354 356 358 360 362 364 366 368 370 372 374 376 378
[91] 380 382 384 386 388 390 392 394 396 398 400
```

2. How many even numbers do we have in `my_even_number`

```
length(my_even_number)
```

```
[1] 101
```

3. create a vector of odd numbers from 30 to 108 and save it in a variable called `my_odd_number`

```
my_odd_number <- seq(31, 108, 2)
my_odd_number
```

```
[1] 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67
[20] 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99 101 103 105
[39] 107
```

4. what is the median of `my_odd_number`

```
median(my_odd_number)
```

```
[1] 69
```

5. what is the average of `my_even_number`

```
mean(my_even_number)
```

```
[1] 300
```

6. Using R, find the remainder of 498 divided by 5

```
498%%5
```

```
[1] 3
```

7. Change the word **greatest** from lower case to upper case

```
toupper("greatest")
```

```
[1] "GREATEST"
```

8. Get the total value if you add `my_even_number` and `my_odd_number`

```
sum(my_even_number, my_odd_number)
```

```
[1] 32991
```

9. create a sequence of number from -10 to 10. and save it in the variable name `my_number`.  
Confirm if `my_number` data type is a character data type

```
my_number <- -10:10  
is.character(my_number)
```

[1] FALSE

10. If your answer in the previous is **TRUE** find the sum, else convert it to a character type

```
sum(my_number)
```

[1] 0

```
as.character(my_number)
```

```
[1] "-10" "-9" "-8" "-7" "-6" "-5" "-4" "-3" "-2" "-1" "0" "1"  
[13] "2" "3" "4" "5" "6" "7" "8" "9" "10"
```