

Assignment 2

1. Create a null vector of size 20 but the 10th value of 20
2. Create a vector of positive odd integers less than 100. Remove the values greater than 60 and less than 80
3. Find the mean, standard deviation of the resulting vector in Q2
4. Consider the following vector of values. $X \leftarrow \{8, 14, 9, 15, NA, 8, 13, 2, 9, NA\}$. Find the positions of the missing values and how many are there
5. Create two matrices from the given vectors
 $X1 = \{2, 3, 7, 1, 6, 2, 3, 5, 1\}$ and $X2 = \{3, 2, 9, 0, 7, 8, 5, 8, 2\}$. Find the matrix product.

6. From the string:
"Silver Gold Copper Platinum"
Use str.split, a loop, string
manipulation and str.join to create the
following sentence. Notice that the
metals are in alphabetical order.

"Copper and gold and platinum and
silver are only worth money."

8. `x` and `y` are integers
x = [-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0
1 2 3 4 5 6 7 8 9]

- If x is from 1 to 4, add one to y.
- If x is not 1, 2, 3, 4, 5, 6, or 7, make y
equal to 7.
- For what values of x are the following
true? $x > 0$ and $x < 3$
- $x \leq 0$ or $x \geq 3$

9. Make a 5 x 8 Numpy array of random integers from 1 - 10. Iterate through each row of your array and report the rows where the numbers add to an even number.

10. Write a function that accumulates into a list, 5 lotto picks. Each lotto pick is a `list` of 6 numbers from 1 to 52, with no repeats. Present them sorted, and printed them like this: Your lotto picks:

6, 9, 10, 29, 37, 43

1, 2, 10, 29, 31, 32

4, 16, 22, 39, 43, 44

4, 10, 12, 28, 37, 44

15, 16, 22, 24, 49, 52