

The basics of R objects

Exercises

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Sections 1-3

1. Create two vectors $\{3, 7, -2, 0, -3, 1\}$ and $\{-4, 5, -1, 0, 6, -5\}$ through concatenation, and assign them to two objects `x` and `z`. Then create a vector `w` from the concatenation of `x` and `z`.
2. Create a vector `weird` from the concatenation of the following elements: the number 3, the name `Jim` and the logical false. Check if `weird` is of mode logical, and if not, display its mode.
3. Create a logical vector indicating which elements of `w` are less or equal to -2.
4. Generate the following sequences:
 - integers from 12 to -2;
 - odd numbers between 3 and 11;
 - a vector with increments of 0.3 starting from 2, with length 6;
 - the repetition of the letters `d`, `e` and `j` for 2, 4 and 1 times, respectively.

Sections 4-5

5. Obtain the vector given by the subtraction of `x` from `z` (objects created above). Then create a logical vector indicating when `x` is higher than twice `z`. Finally, produce the logical vector indicating when `x` is higher than 3 or `z` is equal to 0.
6. Obtain the vector with the cosine transformation of the elements in `z`.
7. Sort `x`. Reverse the order of the elements in `z`. Then, calculate the order index of `w`. What is the meaning of the number 12 in the first entry?
8. Which of the integers from 1 to 5 is included in `w`?