Mandatory

1. Create a function which multiplies its parameter by -1. What happens if an unsigned value is passed as parameter?
2. Create a program which fills an array with zeros!
3. Create a program which sums up the elements of an array!
4. Create a program which prints the greatest element of an array!
5. Create a program which prints the second greatest element of an array!
6. Modify the previous program by adding another array which determines the weights of the first array's elements. Compute the sum this way. For example if the first array is [1, 2, 3, 4, 5] and the second one is [1, 1, 2, 3, 5] then the sum is: 1*1*+*1*2+2*3*+*3*4+5*5
7. Redesign the previous program so it is able computing the average of elements. (It should be able having floating point weights.)
8. Create a program which gets a string and counts the number of characters.
9. Write a program that decides from two strings which is higher in alphabetical order.

Optional

1. Create a program which swaps the smallest and greatest element of an array!
2. Create a program which gets a string and counts the number of lines.
3. Create a program which determines the number of vowels and consonants in a text!
4. Try reading "árvíztűrőtükörfúrógép" or "floodresistantmirrordrill" into a character array and determine its size in bytes!
5. Create a program which determines whether an array contains two amicable numbers! Two numbers are amicable if the sum of proper divisors of each equals the other number (e.g. 220 and 284).
6. Create a program which converts column names to column numbers in a spreadsheet program! (A -> 1, Z -> 26, AA -> 27, ...)
7. Create a program in which you create an array of 101 elements and fill it with numbers between 0 and 999. Determine its middle (median) element! Redesign the program so it works with arrays of 100 elements!

Advanced

1. Create a function which prints all permutations of a word!

2. Create a program which converts column numbers to column names in a spreadsheed program! (1 -> A, 26 -> Z, 27 -> AA, ...)
3. Write a method that calculates the area of the largest triangle that can be formed from long sides of the elements of the array obtained as a parameter.
4. Create a program which gets a string and determines the number of words. Its behavior should be the same as wc command!