

Instructions

- It is a closed book and notes exam.
- Every program must be compiled with `-Wall` and `-Werror` flags.
- Submission must be made as a zip file.
- Understanding of questions is part of solution.

Question 1: (20 Marks)

Write a C program that takes a list of N numbers through command-line argument and breaks it into two halves. The parent process sends each half of the list to its two-child processes respectively through anonymous pipes. The child processes find smallest numbers in their list and send those numbers back to their parent process through pipes. The parent process then finally displays the smallest number on console.

Example: `>. /Prog 100 2 5 9 50 30 36 90`

Output: The smallest number is 2

Question 2: (20 Marks)

Write a C program to implement the given UNIX command:

`ls | grep "D" | sort | wc -l > output.txt`