

1) Calculates the second smallest value of an n given unsorted elements.

Write down the **pseudocode** for it.

1. **Start**
2. **Scan n**
3. **Scan x_1, x_2, \dots, x_n**
4. **$min = x_1$**
5. **if $x_2 < min$**
6. **$min = x_2$**
7. **$min_2 = x_1$**
8. **$i = 2$**
9. **if $x_i < min$**
10. **$min = x_i$**
11. **$i = i + 1$**
12. **if $i \leq n$ go to step number 9**
13. **$i = 2$**
14. **if $i \leq n$**
15. **if $x_i \neq min$ go to step number 16**
16. **if $x_i < min_2$**
17. **$min_2 = x_i$**
18. **$i = i + 1$**
19. **if $i \leq n$ go to step number 14**
20. **print min_2**
21. **End**

2) Calculate the GPA of n given courses where the credit of each course is given as the input. Write down the **pseudocode** for it.

1. **Start**
2. **Scan n**
3. **Scan $course_1, course_2, course_3, \dots, course_n$**
4. **Scan $credit_1, credit_2, credit_3, \dots, credit_n$**
5. **$credit_{total} = 0$**
6. **$course_{total} = 0$**
7. **$i = 1$**
8. **$course_{total} = course_{total} + (course_i * credit_i)$**
9. **$credit_{total} = credit_{total} + credit_i$**
10. **$i = i + 1$**
11. **if $i \leq n$ go to step 7**
12. **$GPA = course_{total} / credit_{total}$**
13. **Print GPA**
14. **End**