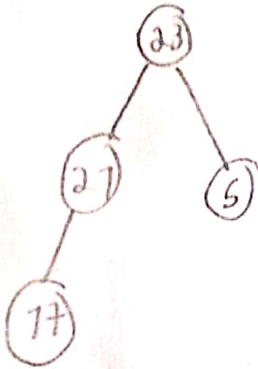
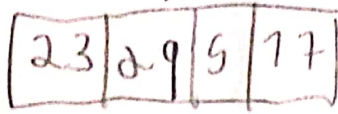


Exercício sobre Merge Sort externo

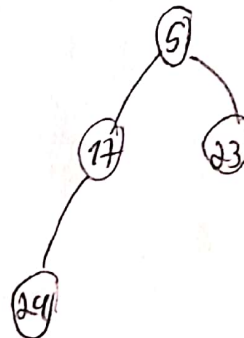
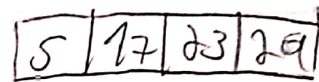
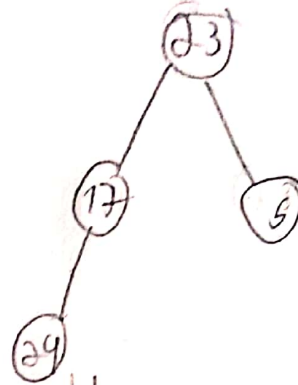
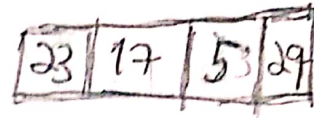
Guilherme de Souza Pinto da Silva

1º Passo

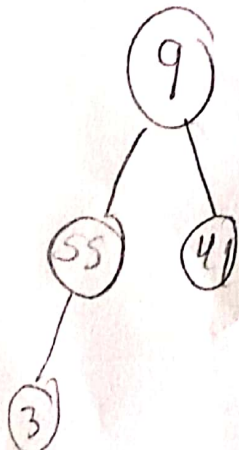
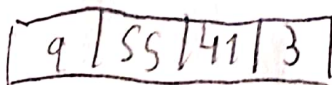
a) 1ª Heap:



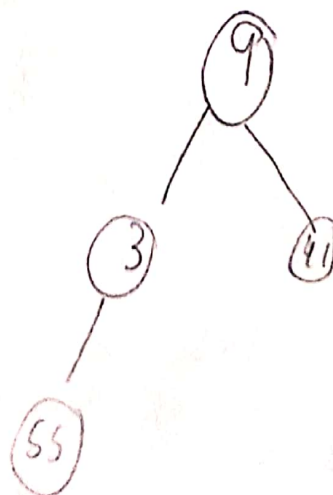
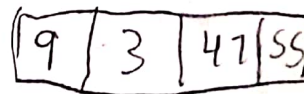
⇒



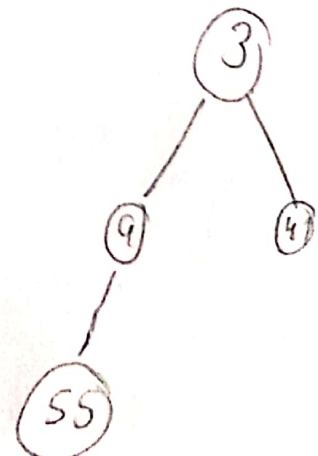
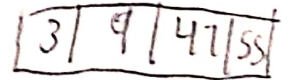
2ª Heap:



⇒



⇒

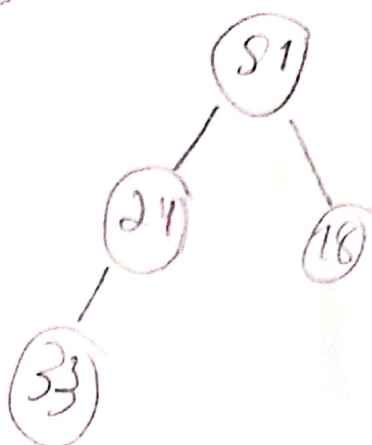
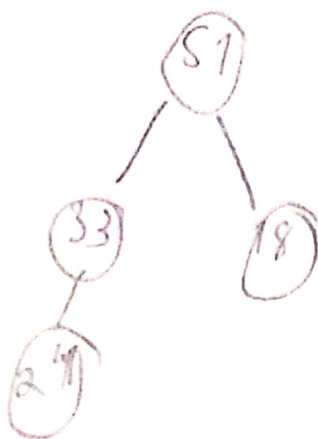


3rd Heap:

51 | 33 | 18 | 24



51 | 24 | 18 | 33



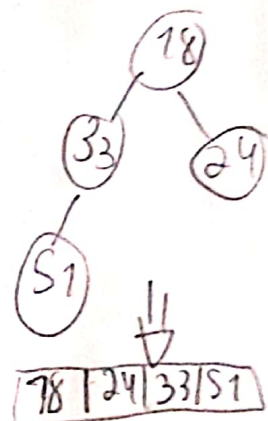
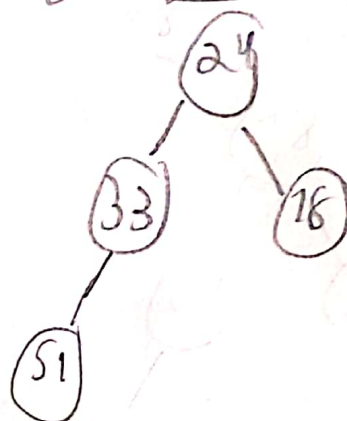
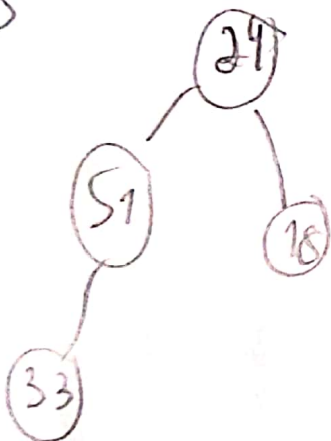
24 | 51 | 18 | 33



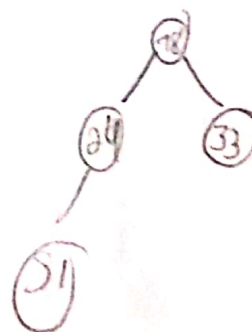
24 | 33 | 18 | 51



18 | 33 | 24 | 51



18 | 24 | 33 | 51



4th Heap:

11 | 47



2º Passo) Ordenar Vetor:

⇒

5	3	18	11
---	--------------	----	----

3

⇒

3	41	33	47
--------------	----	----	----

3
5
9
11
17
18
23
24
29

⇒

3	9	18	11
--------------	---	----	----

3
5

⇒

41	33	47
----	---------------	----

⇒

17	9	18	11
----	--------------	----	----

3
5
9

⇒

17	41	18	11
----	----	----	---------------

3
5
9
11

3
5
9
11
17
18
23
24
29
33

⇒

17	41	18	47
---------------	----	----	----

3
5
9
11
17

⇒

41	51	47
---------------	----	----

3
5
9
11
17
18
23
24
29
33
41

⇒

23	41	17	47
----	----	---------------	----

3
5
9
11
17
18

⇒

55	51	47
----	----	---------------

3
5
9
11
17
18
23
24
29
33
41
47

⇒

41	41	24	47
---------------	----	----	----

3
5
9
11
17
18
23

⇒

29	41	24	47
----	----	---------------	----

3
5
9
11
17
18
23
24

⇒

55	51
----	---------------

3
5
9
11
17
18
23
24
29
33
41
47
51



3
5
9
11
18
23
24
29
33
41
47
51
55

b) 2-2 View :

⇒

5	X
---	---

 /

18	X
----	---

3 / 11

⇒

X	9
---	---

 /

X	14
---	----

3 5 / 11 18

⇒

17	X
----	---

 /

X	47
---	----

3 5 9 / 11 18 33

⇒

X	41
---	----

 /

51	X
----	---

3.5.9.17 / 11.18.33.47

⇒

X	41
---	----

 /

X	1
---	---

3.5.9.17.23 / 11.18.33.47.51

⇒

X	41
---	----

 /

3.5.9.17.23.29 / 11.18.33.47.51

⇒

41

 /

3.5.9.17.23.29.41 / 11.18.33.47.51

⇒

X

3.5.9.17.23.29.41.55 / 11.18.33.47.51

1-2 View:

- ⇒ $\boxed{\cancel{11} | 11}$ 3.
- ⇒ $\boxed{\cancel{11} | 11}$ 3.5
- ⇒ $\boxed{\cancel{11} | 11}$ 3.5.9
- ⇒ $\boxed{17 | \cancel{11}}$ 3.5.9.11
- ⇒ $\boxed{\cancel{17} | 18}$ 3.5.9.11.17
- ⇒ $\boxed{23 | \cancel{18}}$ 3.5.9.11.17.18
- ⇒ $\boxed{\cancel{23} | 33}$ 3.5.9.11.17.18.23
- ⇒ $\boxed{\cancel{29} | 33}$ 3.5.9.11.17.18.23.29
- ⇒ $\boxed{47 | \cancel{33}}$ 3.5.9.11.17.18.23.29.33
- ⇒ $\boxed{\cancel{47} | 47}$ 3.5.9.11.17.18.23.29.33.41
- ⇒ $\boxed{55 | \cancel{47}}$ 3.5.9.11.17.18.23.29.33.41.47
- ⇒ $\boxed{55 | \cancel{51}}$ 3.5.9.11.17.18.23.29.33.41.47.51
- ⇒ $\boxed{\cancel{55} | }$ 3.5.9.11.17.18.23.29.33.41.47.51.55

C) memória (p=4)

Saída:

1º
Condição:

23 29 ~~17~~

5

23 29 ~~17~~

5 9

23 29 55 ~~17~~

5 9 17

~~23~~ 29 55 41

5, 9, 17, 23

3 ~~23~~ 55 41

5, 9, 17, 23, 29

*
não
pode
sair

3 * 51 55 ~~41~~

5, 9, 17, 23, 29, 41

3 ~~51~~ 55 33

5, 9, 17, 23, 29, 41, 51

* * *

3 18 ~~55~~ 33

5, 9, 17, 23, 29, 41, 51, 55

* * *
3 18 24 33
* * *

2º Condição:

~~18~~ 24 33

3,

~~18~~ 24 33

3, 11

47 ~~18~~ 24 33

3, 11, 18

47 24 ~~18~~ 33

3, 11, 18, 24

47 ~~24~~ 33

3, 11, 18, 24, 33

~~47~~

3, 11, 18, 24, 33, 47 //

A situação ideal seria que os números formassem grupos com ordem crescente na saída ao se retirar o menor do grupo.