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| **Last name** | |
| **First name** | |
| **Group** | |

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# Algorithmics
# Undergraduate 1$^{st}$ year S1
# Final Exam #1 (P1)
## *9 Jan. 2018* - 10 : 00
## Answer Sheets

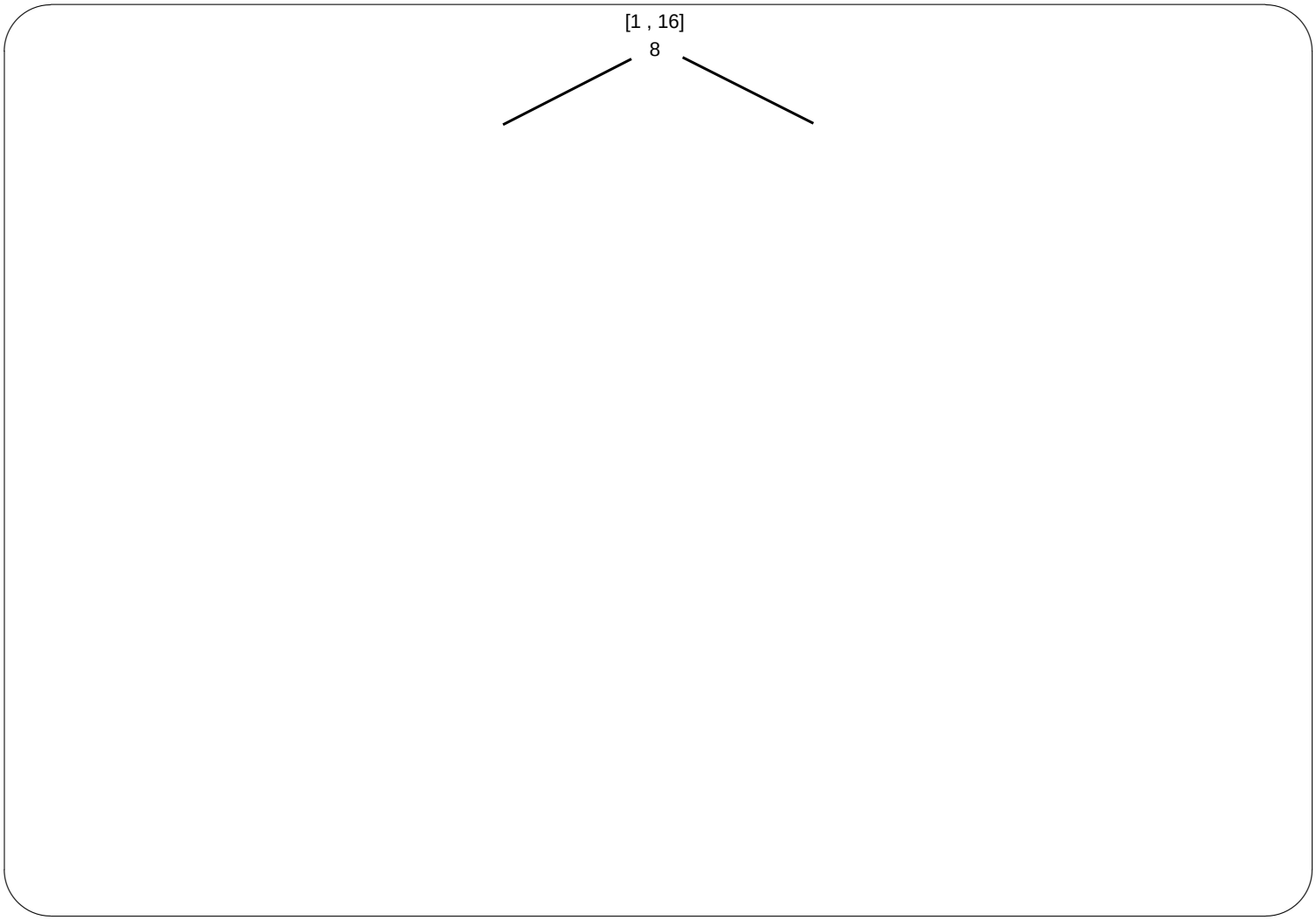
***Answers 1*** **(Stack or queue? –** ***2 points*****)**

| | stack | queue | neither |
|---|---|---|---|
| *A B C D E F* | | | |
| *B D E F A C* | | | |

| | stack | queue | neither |
|---|---|---|---|
| *D E C B F A* | | | |
| *F E D C B A* | | | |

***Answers 2*** **(Binary Search –** ***3 points*****)**

1. Decision tree learning of a binary search:




2. (a) Comparison number (integer): (b) List length:

***Answers 3*** **(Algo → Python –** ***3 points*****)**

1. *What does the function* test *do?*

2. The Python function `test`:

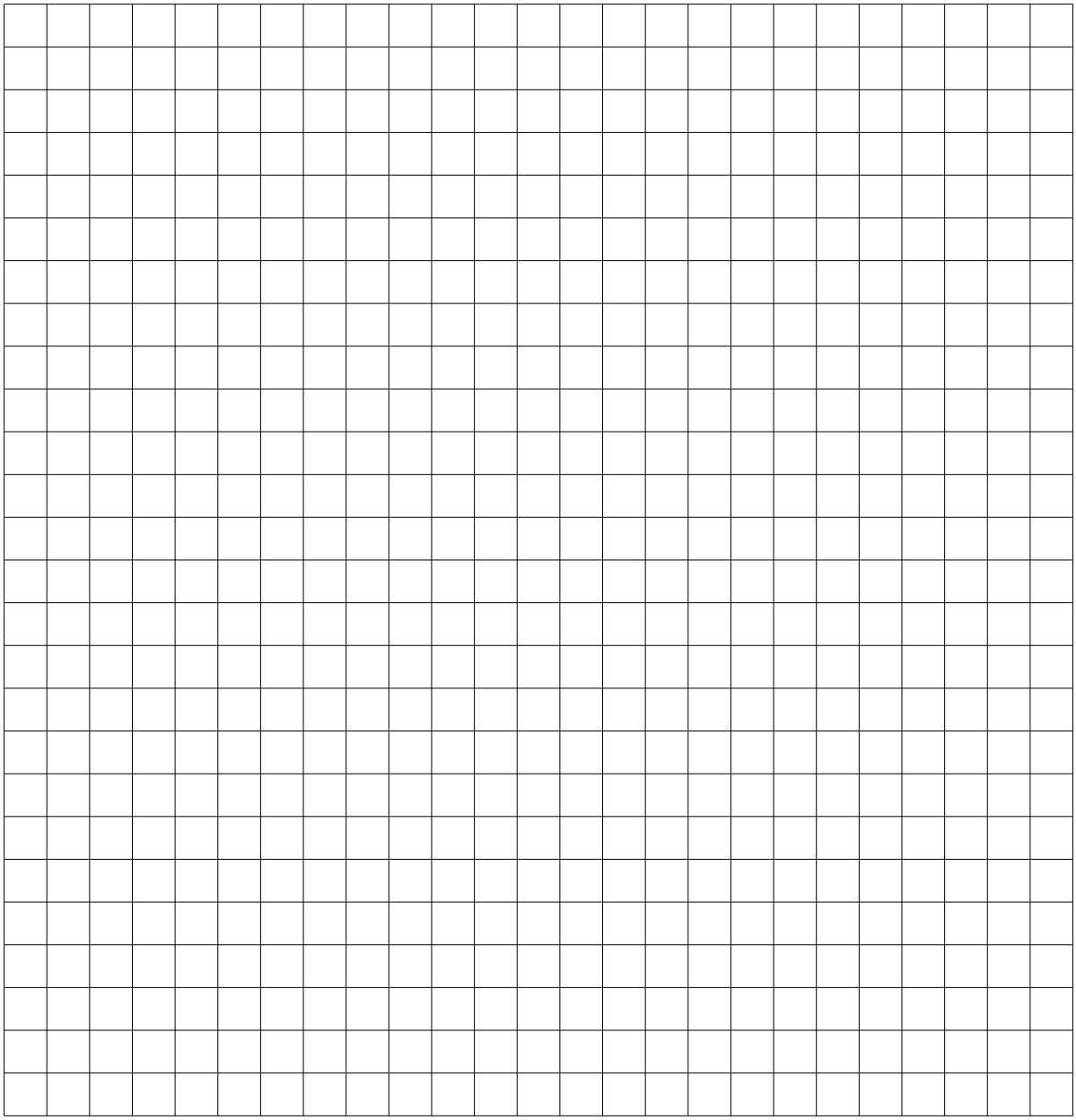
***Answers 4*** **(Minimaxi –** ***3 points*****)**

The function `posMiniMaxi`:

***Answers 5*** **(Merge sort – *2,5 + 5 + 2,5 points*)**

1. The function `partition`:

2. The function `merge`:



3. The function `mergesort`: