**Practical work assignments 8**

In this work, each student will have to complete two tasks according to their variant number. The variant number corresponds to the student's number in the journal.

**Task 1**

A table with objects is given. Which object will be an outlier?

The calculation is performed using the L1 metric.

Variants:

1.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 0 |
| B | -2 | 2 | -1 |
| C | 2 | 3 | 1 |
| D | 1 | 0 | 4 |

 2.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 2 | 0 |
| B | 0 | 2 | 1 |
| C | 2 | 3 | 4 |
| D | 1 | 0 | 4 |

3.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 5 |
| B | 1 | 2 | -1 |
| C | 2 | 3 | 2 |
| D | 1 | 2 | 3 |

4.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 2 | 3 |
| B | 0 | 2 | -1 |
| C | 2 | 3 | 4 |
| D | 1 | 1 | 5 |

5.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | -1 |
| B | 3 | 2 | -1 |
| C | 4 | 3 | 1 |
| D | 1 | 2 | 4 |

6.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 0 |
| B | 0 | 2 | 1 |
| C | 2 | 3 | 4 |
| D | 1 | 3 | 6 |

7.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 0 |
| B | 0 | 2 | 0 |
| C | 2 | 3 | 5 |
| D | 1 | 0 | 4 |

8.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 0 |
| B | 0 | 2 | 1 |
| C | 2 | 1 | 1 |
| D | 1 | 0 | 1 |

9.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 0 | 0 |
| B | 0 | 2 | 1 |
| C | 2 | 1 | 1 |
| D | 1 | 0 | 3 |

10.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 1 |
| B | 0 | 2 | 1 |
| C | 2 | 3 | 1 |
| D | 1 | 2 | 5 |

11.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 0 |
| B | 0 | 2 | 0 |
| C | 2 | 0 | 1 |
| D | 1 | 0 | 7 |

12.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 0 |
| B | 0 | 2 | 0 |
| C | 2 | 0 | 6 |
| D | 1 | 0 | 2 |

13.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 0 |
| B | 0 | 3 | 0 |
| C | 2 | 0 | 1 |
| D | 1 | 0 | 2 |

14.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 0 |
| B | 0 | 2 | 0 |
| C | 2 | 5 | 1 |
| D | 1 | 0 | 3 |

15.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 0 |
| B | 0 | 2 | 0 |
| C | 2 | 0 | 1 |
| D | 1 | 2 | 5 |

16.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 6 |
| B | 0 | 2 | 0 |
| C | 2 | 3 | 3 |
| D | 1 | 4 | 4 |

17.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | -1 | 0 |
| B | 0 | 2 | 5 |
| C | 2 | 0 | 1 |
| D | 1 | 2 | 0 |

18.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 8 |
| B | 0 | 2 | 2 |
| C | 2 | 3 | 2 |
| D | 1 | 0 | 0 |

19.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 10 | 0 |
| B | 0 | 2 | -1 |
| C | 0 | 3 | 1 |
| D | 10 | 9 | 4 |

20.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 6 |
| B | 0 | 2 | -1 |
| C | 2 | 3 | 0 |
| D | 0 | 0 | 2 |

21.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 7 | 1 | 0 |
| B | 8 | 2 | -1 |
| C | 2 | 3 | 4 |
| D | 1 | 0 | 2 |

22.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 0 |
| B | 0 | 2 | 3 |
| C | 2 | 2 | 1 |
| D | 1 | 0 | 2 |

23.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 2 | 1 | 0 |
| B | 0 | 2 | 1 |
| C | 2 | 4 | 1 |
| D | 1 | 2 | 3 |

24.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 1 |
| B | 3 | 2 | 1 |
| C | 2 | 3 | 1 |
| D | 3 | 0 | 1 |

25.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 4 | 6 |
| B | 0 | 4 | 1 |
| C | 2 | 3 | 4 |
| D | 1 | 2 | 3 |

26.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 0 |
| B | 4 | 2 | -1 |
| C | 2 | 3 | 6 |
| D | 1 | 0 | 2 |

27.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 0 | 0 |
| B | 0 | 2 | 5 |
| C | 2 | 3 | 2 |
| D | 2 | 5 | 4 |

28.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 2 | 2 |
| B | 0 | 2 | 1 |
| C | 2 | 3 | 6 |
| D | 1 | 0 | 1 |

29.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 1 | 1 | 1 |
| B | 0 | 2 | 1 |
| C | 2 | 3 | 1 |
| D | 1 | 2 | 4 |

30.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Р1 | Р2 | Р3 |
| A | 3 | 1 | 1 |
| B | 0 | 2 | 1 |
| C | 2 | 1 | 1 |
| D | 1 | 0 | 1 |

**Task 2**

1. The first and third quartiles of the P-sign values are 2, 4, respectively.

What ranges of data values will outliers fall into?

2. The first and third quartiles of the P-sign values are 3, 4, respectively.

What ranges of data values will outliers fall into?

3. The first and third quartiles of the P-sign values are 2, 5, respectively.

What ranges of data values will outliers fall into?

4. The first and third quartiles of the P-sign values are 3, 8, respectively.

What ranges of data values will outliers fall into?

5. The first and third quartiles of the P-sign values are 2.7, respectively.

What ranges of data values will outliers fall into?

6. The first and third quartiles of the P-sign values are 5, 14, respectively.

What ranges of data values will outliers fall into?

7. The first and third quartiles of the P-sign values are 12, 14, respectively.

What ranges of data values will outliers fall into?

8. The first and third quartiles of the P-sign values are 4, 14, respectively.

What ranges of data values will outliers fall into?

9. The first and third quartiles of the P-sign values are 12 and 16, respectively. What ranges of data values will outliers fall into?

10. The first and third quartiles of the P-sign values are 5, 8, respectively.

What ranges of data values will outliers fall into?

11. The first and third quartiles of the P-sign values are 10, 14, respectively.

What ranges of data values will outliers fall into?

12. The first and third quartiles of the P-sign values are 12, 18, respectively.

What ranges of data values will outliers fall into?

13. The first and third quartiles of the P-sign values are 4, 10, respectively.

What ranges of data values will outliers fall into?

14. The first and third quartiles of the P-sign values are 3, 7, respectively.

What ranges of data values will outliers fall into?

15. The first and third quartiles of the P-sign values are 5, 9, respectively.

What ranges of data values will outliers fall into?

16. The first and third quartiles of the P-sign values are 6 and 10, respectively. What ranges of data values will outliers fall into?

17. The first and third quartiles of the P-sign values are 7 and 13, respectively. What ranges of data values will outliers fall into?

18. The first and third quartiles of the P-sign values are equal to 6, 18, respectively. What ranges of data values will outliers fall into?

19. The first and third quartiles of the P-sign values are 15 and 20, respectively. What ranges of data values will outliers fall into?

20. The first and third quartiles of the P-sign values are 20, 24, respectively.

What ranges of data values will outliers fall into?

21. The first and third quartiles of the P-sign values are 20, 44, respectively.

What ranges of data values will outliers fall into?

22. The first and third quartiles of the P-sign values are 1, 5, respectively.

What ranges of data values will outliers fall into?

23. The first and third quartiles of the P-sign values are equal to 0.6, respectively. What ranges of data values will outliers fall into?

24. The first and third quartiles of the P-sign values are 1, 7, respectively.

What ranges of data values will outliers fall into?

25. The first and third quartiles of the P-sign values are 3, 8, respectively.

What ranges of data values will outliers fall into?

26. The first and third quartiles of the P-sign values are 2, 9, respectively.

What ranges of data values will outliers fall into?

27. The first and third quartiles of the P-sign values are 1, 4, respectively.

What ranges of data values will outliers fall into?

28. The first and third quartiles of the P-sign values are equal to 2, 12, respectively. What ranges of data values will outliers fall into?

29. The first and third quartiles of the P-sign values are equal to 0.4, respectively. What ranges of data values will outliers fall into?

30. The first and third quartiles of the P-sign values are 5, 17, respectively.

What ranges of data values will outliers fall into?