# Часть 1

|  |  |  |
| --- | --- | --- |
| Описание объекта | Ожидаемый результат | Результат модели |
| 1, 2, 3 | 0 | -1 |
| 3, 5, 7 | 1 | 0 |
| 0, 0, 0 | 5 | 1 |
| 2, 8, 1 | 100 | 50 |

*Среднеквадратичная ошибка:*

= (1+0+16+2500)/4=629.25

*Средняя абсолютная ошибка:*

=(1+1+4+50)/4=14.0

где - значение из данных, - результат работы модели

# Часть 2

*tp = 3*

*tn= 1*

*fp = 1*

*fn=3*

*accuracy* = =4/8=0.5

*precision* = =3/4=0.75

*recall* = =3/6=0.5

*F*1 = =2\*(0.75\*0.5)/(1.25)=0.6

# Чвсть 3

|  |  |
| --- | --- |
| Описание объекта | Результат модели |
| 1, 2, 3 | 1 |
| 3, 5, 7 | 0 |
| 0, 0, 0 | 0 |
| 2, 8, 1 | 1 |

1. -0.28731492
2. -0.33222197
3. -0.33876466
4. 0.15128321

# Часть 5

***Accuracy is the proportion of correct answers of the algorithm:***

***Precision can be interpreted as the proportion of objects called positive by the classifier and at the same time really positive***

Recall shows what proportion of objects of a positive class from all objects of a positive class was found by the algorithm.

Precision and recall do not depend, in contrast to accuracy, on the ratio of classes and therefore are applicable in conditions of unbalanced samples.

F1 classifier assessment metric is directly related to precision and recall, is a joint assessment of accuracy and completeness

Based on the direction of the metrics to the first and second experiences, it is best to apply f1, precision and recall; it is better to apply accuracy or recall to the third and fourth experiences.