In [1]:
```
import os
import numpy as np
import pandas as pd
import warnings
import matplotlib.pyplot as plt
import seaborn as sns
import lightgbm as lgb
from sklearn.metrics import mean_squared_error
from sklearn.metrics import roc_auc_score, roc_curve
from sklearn.model_selection import StratifiedKFold
warnings.filterwarnings('ignore')
import pickle
import scipy.stats as ss
from sklearn.model_selection import train_test_split, StratifiedKFold, R
andomizedSearchCV
from sklearn.metrics import accuracy_score, confusion_matrix, roc_auc_sc
ore, classification_report
from sklearn.ensemble import RandomForestClassifier
from xgboost.sklearn import XGBClassifier
from sklearn.linear_model import LogisticRegression
```

# Exploratory Data analysis

In [2]:
```
test_data = pd.read_csv("test.csv")
train_data = pd.read_csv("train.csv")
train_data.head()
```

Out[2]:

| | ID_code | target | var_0 | var_1 | var_2 | var_3 | var_4 | var_5 | var_ |
|---|---|---|---|---|---|---|---|---|---|
| **0** | train_0 | 0 | 8.9255 | -6.7863 | 11.9081 | 5.0930 | 11.4607 | -9.2834 | 5.118 |
| **1** | train_1 | 0 | 11.5006 | -4.1473 | 13.8588 | 5.3890 | 12.3622 | 7.0433 | 5.620 |
| **2** | train_2 | 0 | 8.6093 | -2.7457 | 12.0805 | 7.8928 | 10.5825 | -9.0837 | 6.942 |
| **3** | train_3 | 0 | 11.0604 | -2.1518 | 8.9522 | 7.1957 | 12.5846 | -1.8361 | 5.842 |
| **4** | train_4 | 0 | 9.8369 | -1.4834 | 12.8746 | 6.6375 | 12.2772 | 2.4486 | 5.940 |

5 rows × 202 columns

In [3]:
```
test_data.head()
```

Out[3]:

| | ID_code | var_0 | var_1 | var_2 | var_3 | var_4 | var_5 | var_6 | va |
|---|---|---|---|---|---|---|---|---|---|
| **0** | test_0 | 11.0656 | 7.7798 | 12.9536 | 9.4292 | 11.4327 | -2.3805 | 5.8493 | 18.2 |
| **1** | test_1 | 8.5304 | 1.2543 | 11.3047 | 5.1858 | 9.1974 | -4.0117 | 6.0196 | 18.6 |
| **2** | test_2 | 5.4827 | -10.3581 | 10.1407 | 7.0479 | 10.2628 | 9.8052 | 4.8950 | 20.2 |
| **3** | test_3 | 8.5374 | -1.3222 | 12.0220 | 6.5749 | 8.8458 | 3.1744 | 4.9397 | 20.5 |
| **4** | test_4 | 11.7058 | -0.1327 | 14.1295 | 7.7506 | 9.1035 | -8.5848 | 6.8595 | 10.6 |

5 rows × 201 columns

In [4]:
```
train_data.describe()
```

Out[4]:

| | target | var_0 | var_1 | var_2 | |
|---|---|---|---|---|---|
| **count** | 200000.000000 | 200000.000000 | 200000.000000 | 200000.000000 | 200000.0 |
| **mean** | 0.100490 | 10.679914 | -1.627622 | 10.715192 | 6.7 |
| **std** | 0.300653 | 3.040051 | 4.050044 | 2.640894 | 2.0 |
| **min** | 0.000000 | 0.408400 | -15.043400 | 2.117100 | -0.0 |
| **25%** | 0.000000 | 8.453850 | -4.740025 | 8.722475 | 5.2 |
| **50%** | 0.000000 | 10.524750 | -1.608050 | 10.580000 | 6.8 |
| **75%** | 0.000000 | 12.758200 | 1.358625 | 12.516700 | 8.3 |
| **max** | 1.000000 | 20.315000 | 10.376800 | 19.353000 | 13.1 |

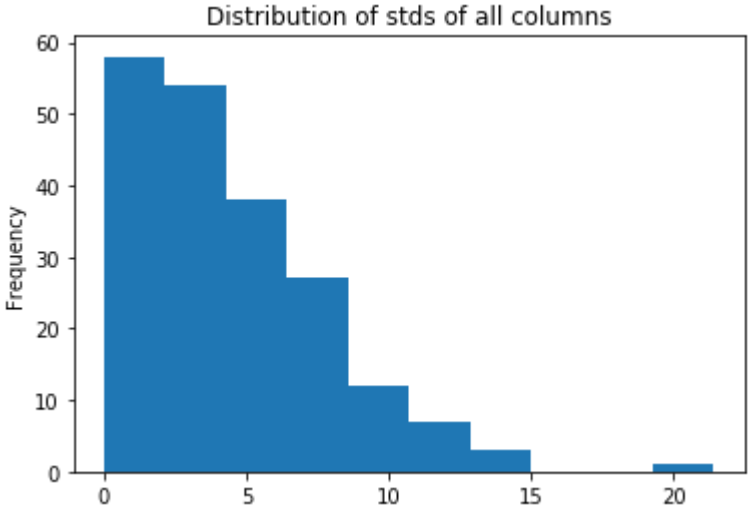
8 rows × 201 columns

In [4]:
```
print("Dataset Shape\nRows:{0}\nColumns:{1}".format(train_data.shape[0], train_data.shape[1]))
```

```
Dataset Shape
Rows:200000
Columns:202
```

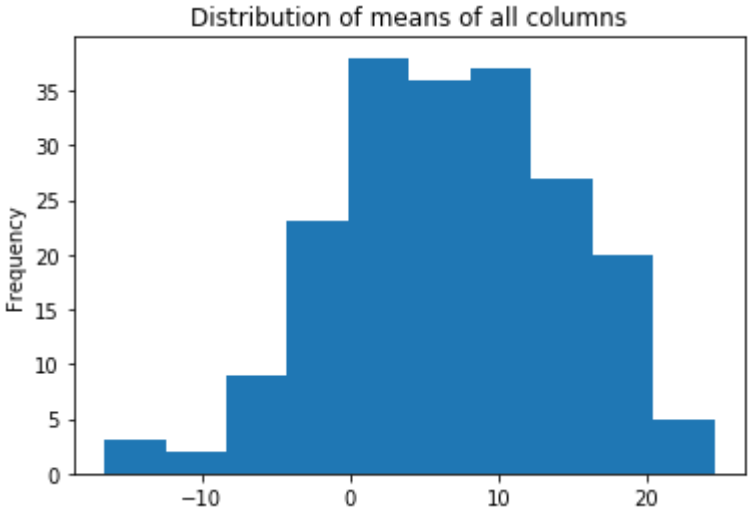
## Distribution of stds of all columns

In [29]:
```
train_data[train_data.columns[2:]].std().plot('hist');
plt.title('Distribution of stds of all columns');
```




## Distribution of stds of all columns

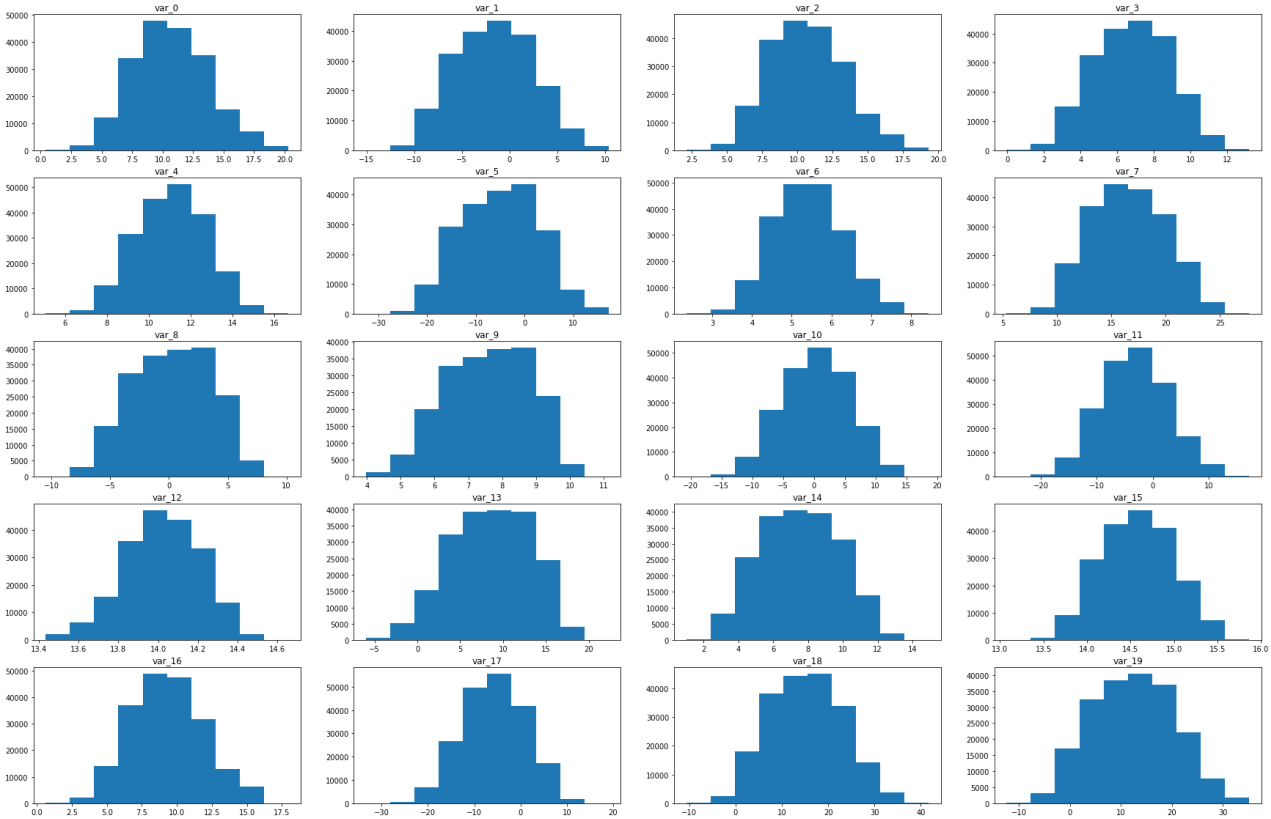
In [30]:
```
train_data[train_data.columns[2:]].mean().plot('hist');
plt.title('Distribution of means of all columns');
```



In [31]:

```
print('Distributions of first 20 columns')
plt.figure(figsize=(30, 28))
for i, col in enumerate(list(train_data.columns)[2:22]):
    plt.subplot(7, 4, i + 1)
    plt.hist(train_data[col])
    plt.title(col)
```

Distributions of first 20 columns



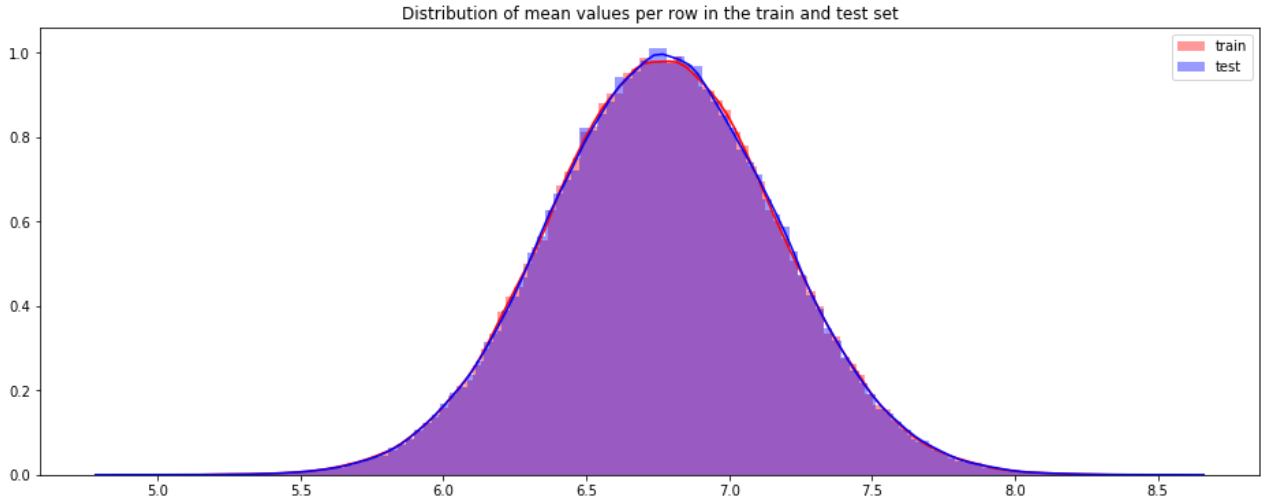
In [32]:

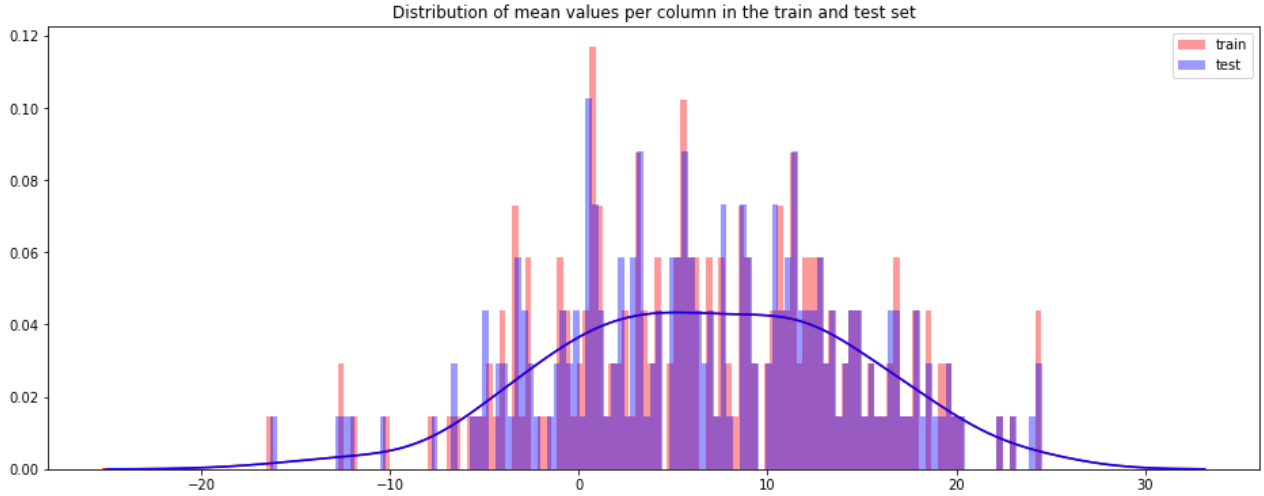
```
plt.figure(figsize=(16,6))
features = train_data.columns.values[2:202]
plt.title("Distribution of mean values per row in the train and test se
t")
sns.distplot(train_data[features].mean(axis=1),color="red", kde=True,bin
s=120, label='train')
sns.distplot(test_data[features].mean(axis=1),color="blue", kde=True,bin
s=120, label='test')
plt.legend()
plt.show()
plt.figure(figsize=(16,6))
plt.title("Distribution of mean values per column in the train and test
 set")
sns.distplot(train_data[features].mean(axis=0),color="red",kde=True,bins
=120, label='train')
sns.distplot(test_data[features].mean(axis=0),color="blue", kde=True,bin
s=120, label='test')
plt.legend()
plt.show()
plt.figure(figsize=(16,6))
plt.title("Distribution of std values per row in the train and test set"
)
sns.distplot(train_data[features].std(axis=1),color="red", kde=True,bins
=120, label='train')
sns.distplot(test_data[features].std(axis=1),color="blue", kde=True,bins
=120, label='test')
plt.legend();plt.show()
plt.figure(figsize=(16,6))
plt.title("Distribution of std values per column in the train and test s
et")
sns.distplot(train_data[features].std(axis=0),color="red",kde=True,bins=
120, label='train')
sns.distplot(test_data[features].std(axis=0),color="blue", kde=True,bins
=120, label='test')
plt.legend(); plt.show()
t0 = train_data.loc[train_data['target'] == 0]
t1 = train_data.loc[train_data['target'] == 1]
plt.figure(figsize=(16,6))
plt.title("Distribution of mean values per row in the train set")
sns.distplot(t0[features].mean(axis=1),color="red", kde=True,bins=120, l
abel='target = 0')
sns.distplot(t1[features].mean(axis=1),color="blue", kde=True,bins=120,
label='target = 1')
plt.legend(); plt.show()
plt.figure(figsize=(16,6))
plt.title("Distribution of mean values per column in the train set")
sns.distplot(t0[features].mean(axis=0),color="red", kde=True,bins=120, l
abel='target = 0')
sns.distplot(t1[features].mean(axis=0),color="blue", kde=True,bins=120,
label='target = 1')
plt.legend(); plt.show()
plt.figure(figsize=(16,6))
features = train_data.columns.values[2:202]
plt.title("Distribution of min values per row in the train and test set"
)
sns.distplot(train_data[features].min(axis=1),color="red", kde=True,bins
=120, label='train')
sns.distplot(test_data[features].min(axis=1),color="blue", kde=True,bins
```

```
=120, label='test')
plt.legend()
plt.show()
plt.figure(figsize=(16,6))
features = train_data.columns.values[2:202]
plt.title("Distribution of min values per column in the train and test s
et")
sns.distplot(train_data[features].min(axis=0),color="red", kde=True,bins
=120, label='train')
sns.distplot(test_data[features].min(axis=0),color="blue", kde=True,bins
=120, label='test')
plt.legend()
plt.show()
plt.figure(figsize=(16,6))
features = train_data.columns.values[2:202]
plt.title("Distribution of max values per row in the train and test set"
)
sns.distplot(train_data[features].max(axis=1),color="red", kde=True,bins
=120, label='train')
sns.distplot(test_data[features].max(axis=1),color="blue", kde=True,bins
=120, label='test')
plt.legend()
plt.show()
plt.figure(figsize=(16,6))
features = train_data.columns.values[2:202]
plt.title("Distribution of max values per column in the train and test s
et")
sns.distplot(train_data[features].max(axis=0),color="red", kde=True,bins
=120, label='train')
sns.distplot(test_data[features].max(axis=0),color="blue", kde=True,bins
=120, label='test')
plt.legend()
plt.show()
t0 = train_data.loc[train_data['target'] == 0]
t1 = train_data.loc[train_data['target'] == 1]
plt.figure(figsize=(16,6))
plt.title("Distribution of min values per row in the train set")
sns.distplot(t0[features].min(axis=1),color="red", kde=True,bins=120, la
bel='target = 0')
sns.distplot(t1[features].min(axis=1),color="blue", kde=True,bins=120, l
abel='target = 1')
plt.legend(); plt.show()
plt.figure(figsize=(16,6))
plt.title("Distribution of min values per column in the train set")
sns.distplot(t0[features].min(axis=0),color="red", kde=True,bins=120, la
bel='target = 0')
sns.distplot(t1[features].min(axis=0),color="blue", kde=True,bins=120, l
abel='target = 1')
plt.legend(); plt.show()
plt.figure(figsize=(16,6))
plt.title("Distribution of max values per row in the train set")
sns.distplot(t0[features].max(axis=1),color="red", kde=True,bins=120, la
bel='target = 0')
sns.distplot(t1[features].max(axis=1),color="blue", kde=True,bins=120, l
abel='target = 1')
plt.legend(); plt.show()
plt.figure(figsize=(16,6))
plt.title("Distribution of max values per column in the train set")
sns.distplot(t0[features].max(axis=0),color="red", kde=True,bins=120, la
```

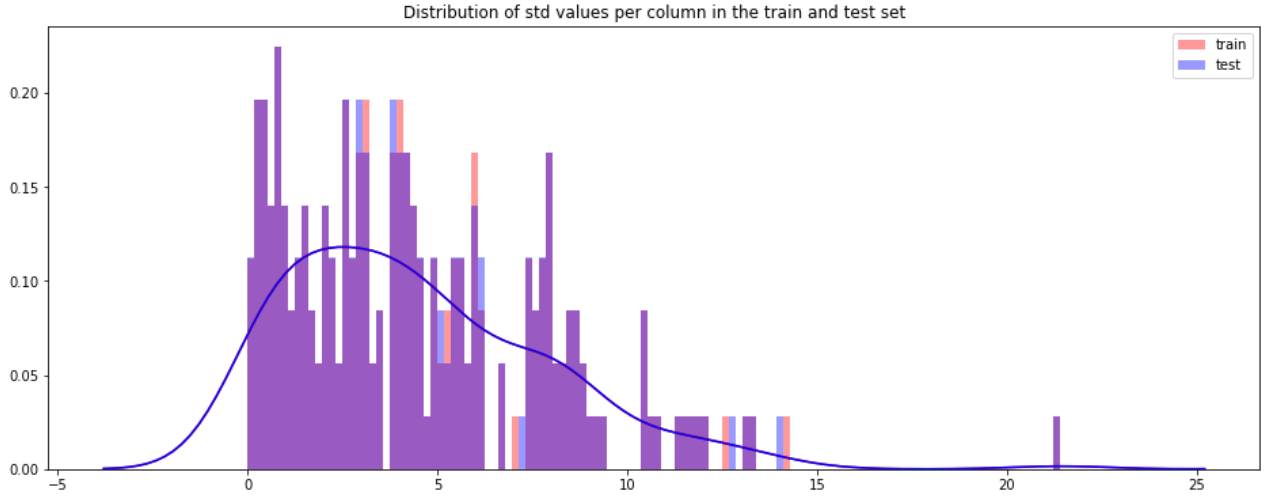
```
bel='target = 0')
sns.distplot(t1[features].max(axis=0),color="blue", kde=True,bins=120, l
abel='target = 1')
plt.legend(); plt.show()
plt.figure(figsize=(16,6))
plt.title("Distribution of skew per row in the train and test set")
sns.distplot(train_data[features].skew(axis=1),color="red", kde=True,bin
s=120, label='train')
sns.distplot(test_data[features].skew(axis=1),color="blue", kde=True,bin
s=120, label='test')
plt.legend()
plt.show()
plt.figure(figsize=(16,6))
plt.title("Distribution of skew per column in the train and test set")
sns.distplot(train_data[features].skew(axis=0),color="red", kde=True,bin
s=120, label='train')
sns.distplot(test_data[features].skew(axis=0),color="blue", kde=True,bin
s=120, label='test')
plt.legend()
plt.show()
plt.figure(figsize=(16,6))
plt.title("Distribution of kurtosis per row in the train and test set")
sns.distplot(train_data[features].kurtosis(axis=1),color="red", kde=True
,bins=120, label='train')
sns.distplot(test_data[features].kurtosis(axis=1),color="blue", kde=True
,bins=120, label='test')
plt.legend()
plt.show()
plt.figure(figsize=(16,6))
plt.title("Distribution of kurtosis per column in the train and test se
t")
sns.distplot(train_data[features].kurtosis(axis=0),color="red", kde=True
,bins=120, label='train')
sns.distplot(test_data[features].kurtosis(axis=0),color="blue", kde=True
,bins=120, label='test')
plt.legend()
plt.show()
t0 = train_data.loc[train_data['target'] == 0]
t1 = train_data.loc[train_data['target'] == 1]
plt.figure(figsize=(16,6))
plt.title("Distribution of skew values per row in the train set")
sns.distplot(t0[features].skew(axis=1),color="red", kde=True,bins=120, l
abel='target = 0')
sns.distplot(t1[features].skew(axis=1),color="blue", kde=True,bins=120,
label='target = 1')
plt.legend(); plt.show()
t0 = train_data.loc[train_data['target'] == 0]
t1 = train_data.loc[train_data['target'] == 1]
plt.figure(figsize=(16,6))
plt.title("Distribution of kurtosis values per row in the train set")
sns.distplot(t0[features].kurtosis(axis=1),color="red", kde=True,bins=12
0, label='target = 0')
sns.distplot(t1[features].kurtosis(axis=1),color="blue", kde=True,bins=1
20, label='target = 1')
plt.legend(); plt.show()
t0 = train_data.loc[train_data['target'] == 0]
t1 = train_data.loc[train_data['target'] == 1]
plt.figure(figsize=(16,6))
plt.title("Distribution of kurtosis values per column in the train set")
```

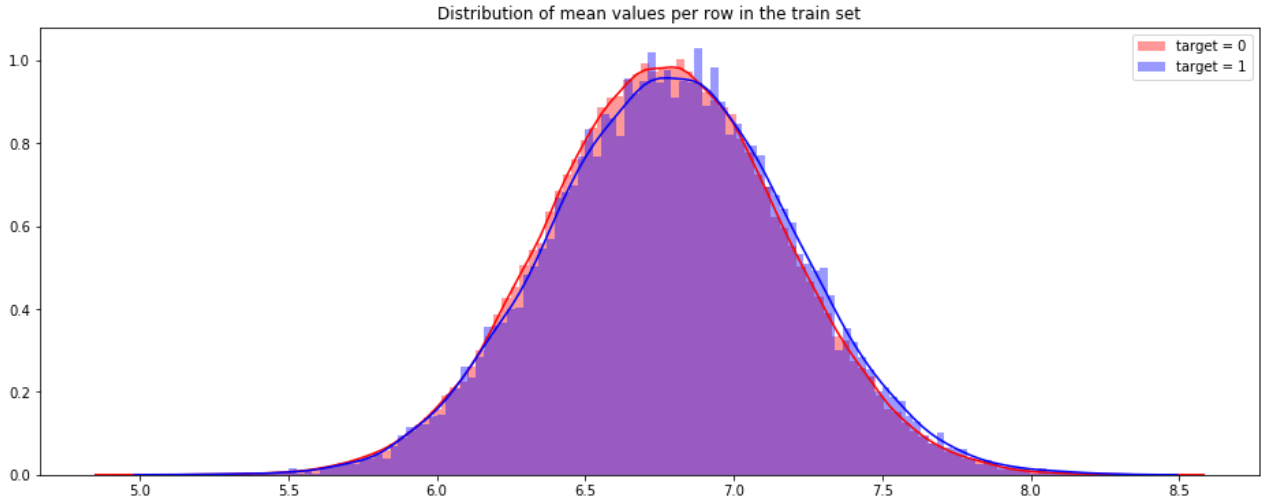
```
sns.distplot(t0[features].kurtosis(axis=0),color="red", kde=True,bins=12
0, label='target = 0')
sns.distplot(t1[features].kurtosis(axis=0),color="blue", kde=True,bins=1
20, label='target = 1')
plt.legend(); plt.show()
```

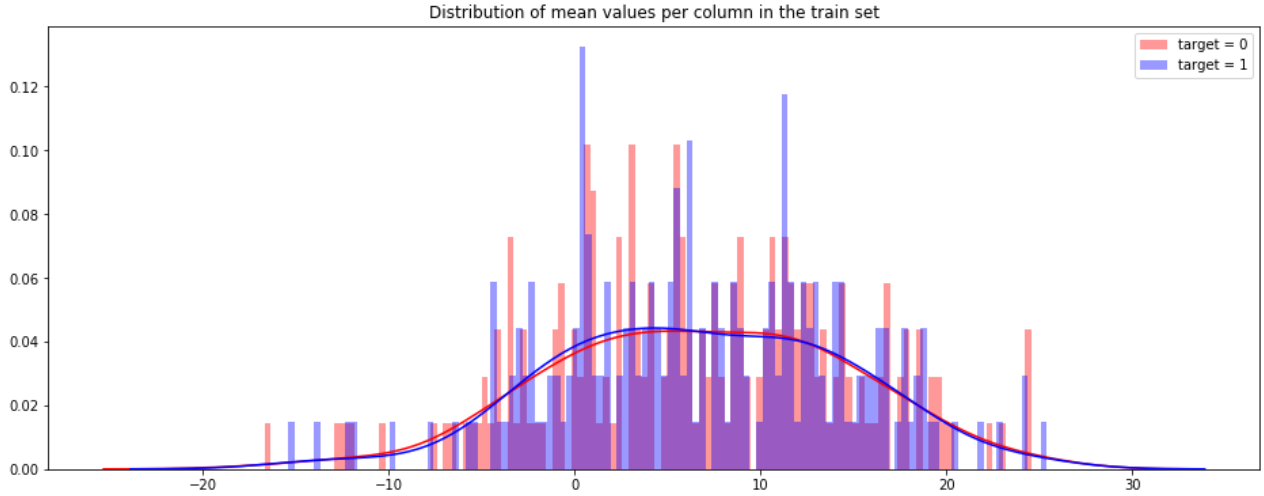

Distribution of mean values per row in the train and test set
train
test
1.0
0.8
0.6
0.4
0.2
0.0
5.0
5.5
6.0
6.5
7.0
7.5
8.0
8.5

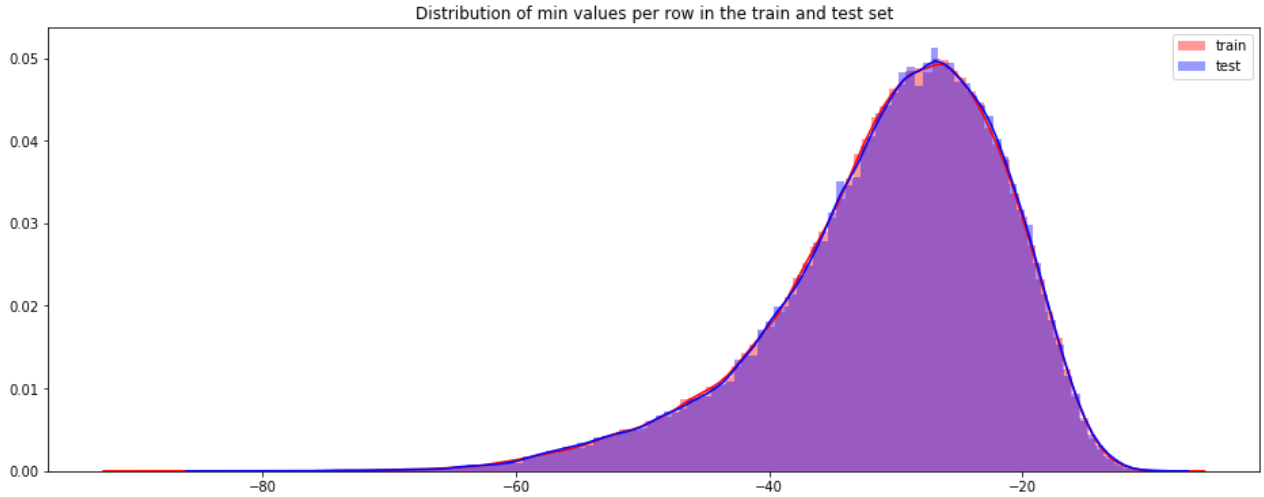

Distribution of mean values per column in the train and test set
train
test
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−20
−10
0
10
20
30

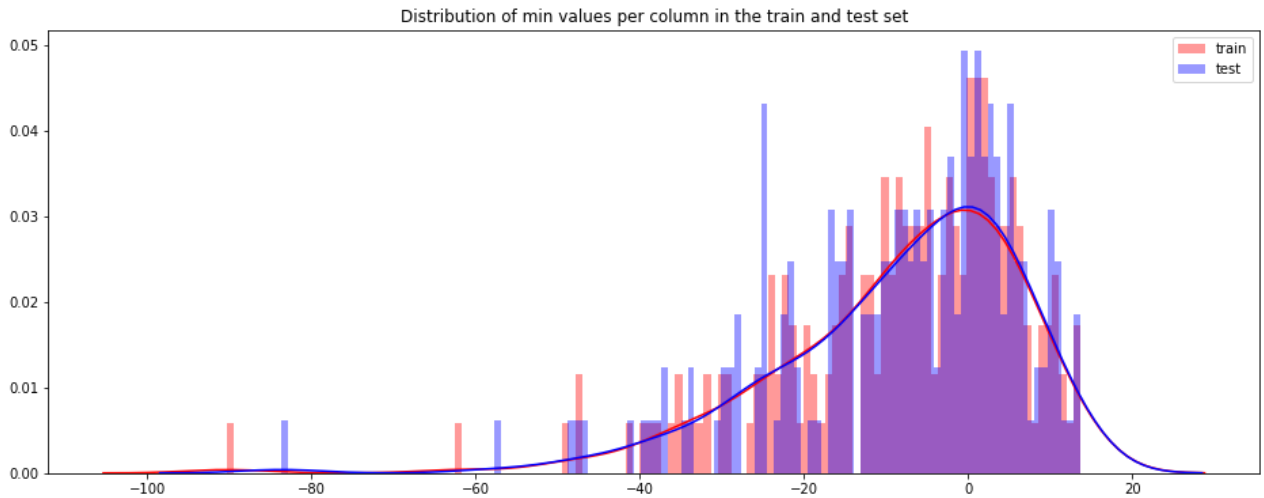
Distribution of std values per row in the train and test set
train
test
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
7
8
9
10
11
12

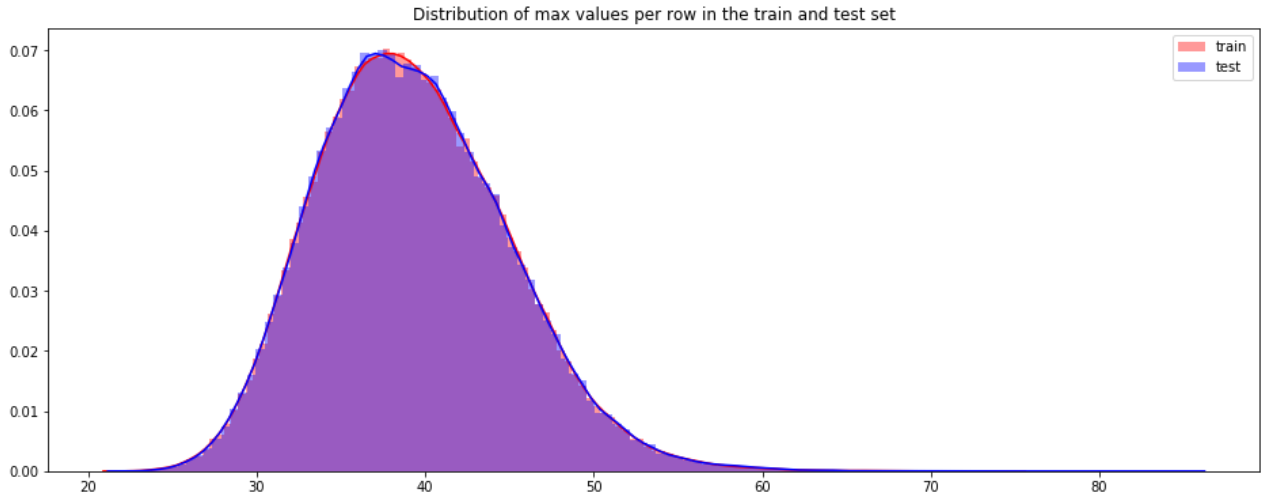

Distribution of std values per column in the train and test set
train
test
0.20
0.15
0.10
0.05
0.00
−5
0
5
10
15
20
25

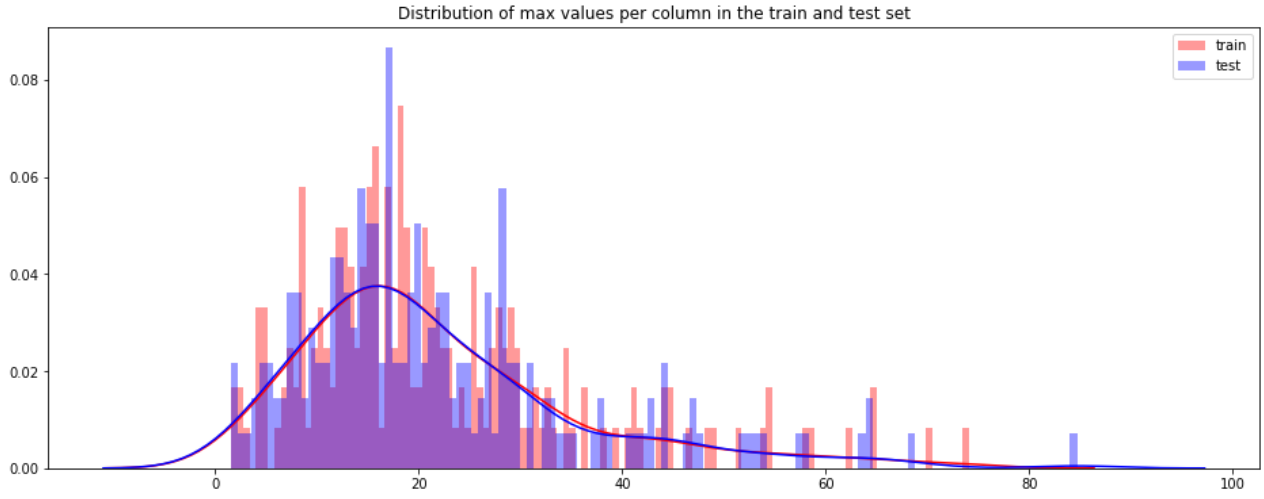

Distribution of mean values per row in the train set
target = 0
target = 1
1.0
0.8
0.6
0.4
0.2
0.0
5.0
5.5
6.0
6.5
7.0
7.5
8.0
8.5

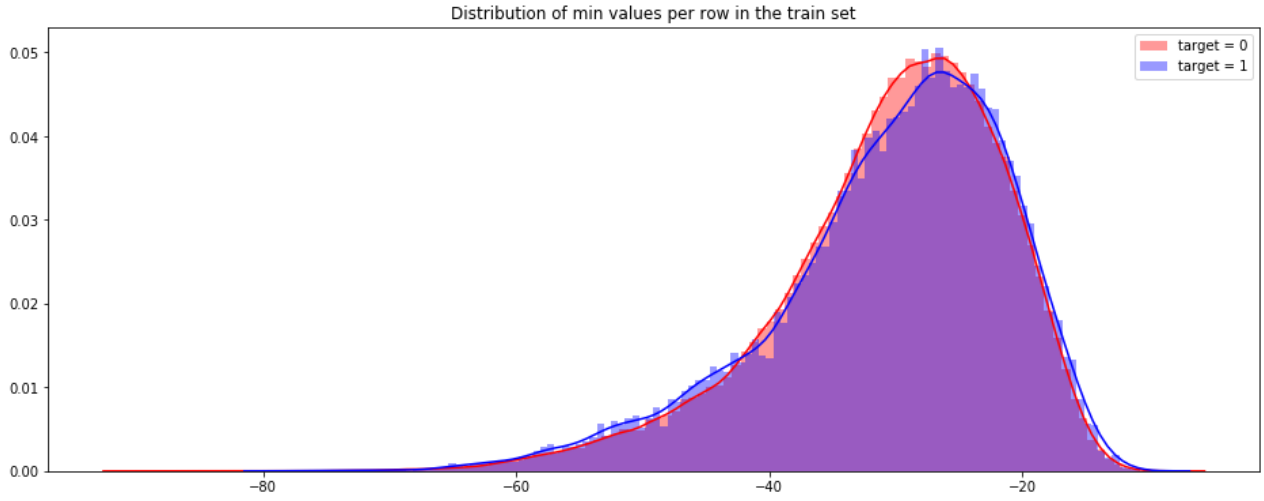

Distribution of mean values per column in the train set
target = 0
target = 1
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−20
−10
0
10
20
30

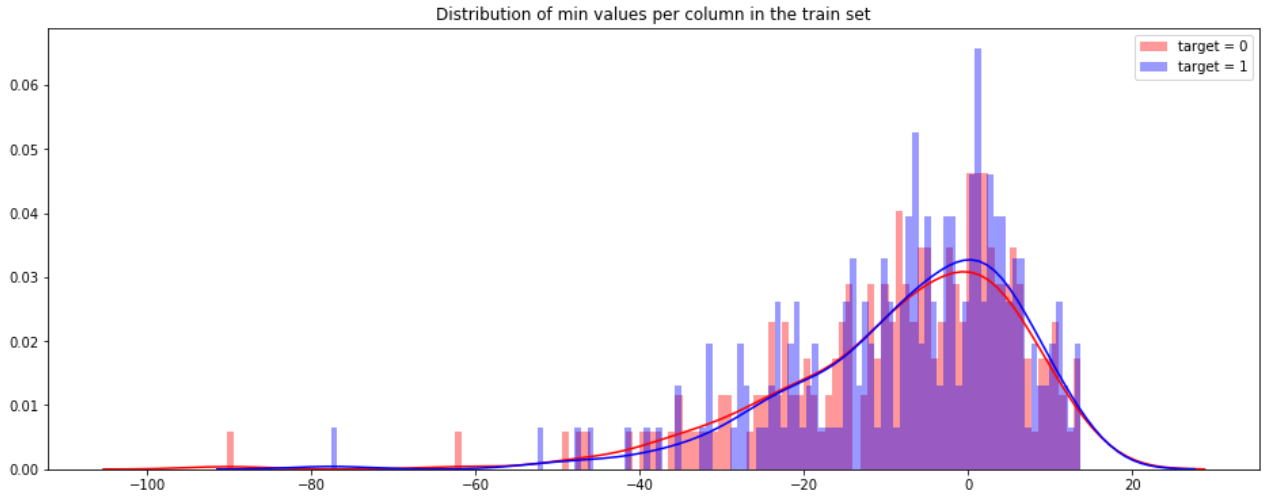

Distribution of min values per row in the train and test set
train
test
0.05
0.04
0.03
0.02
0.01
0.00
−80
−60
−40
−20

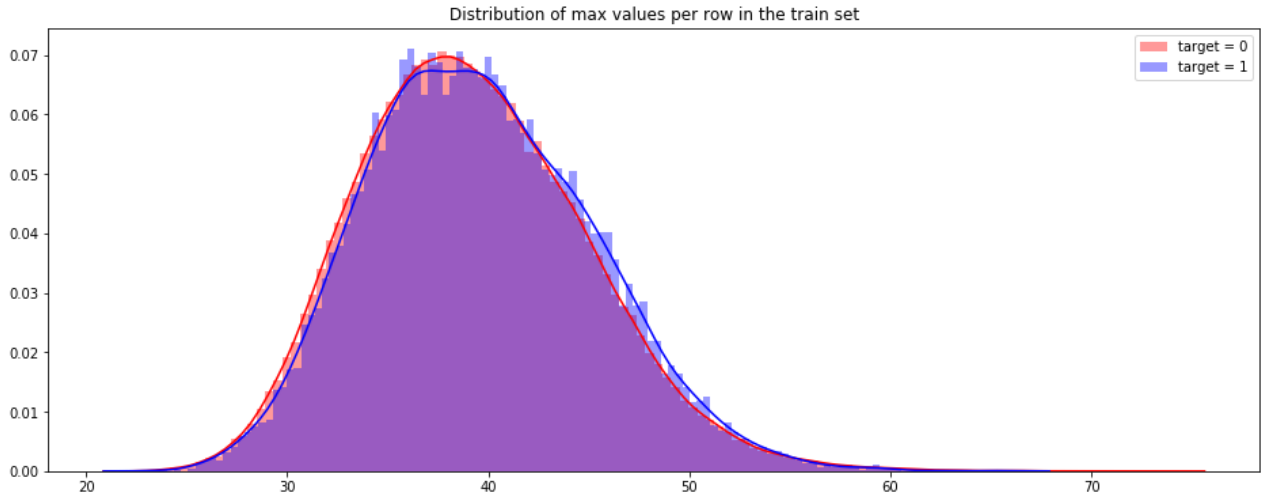

Distribution of min values per column in the train and test set
train
test
0.05
0.04
0.03
0.02
0.01
0.00
−100
−80
−60
−40
−20
0
20

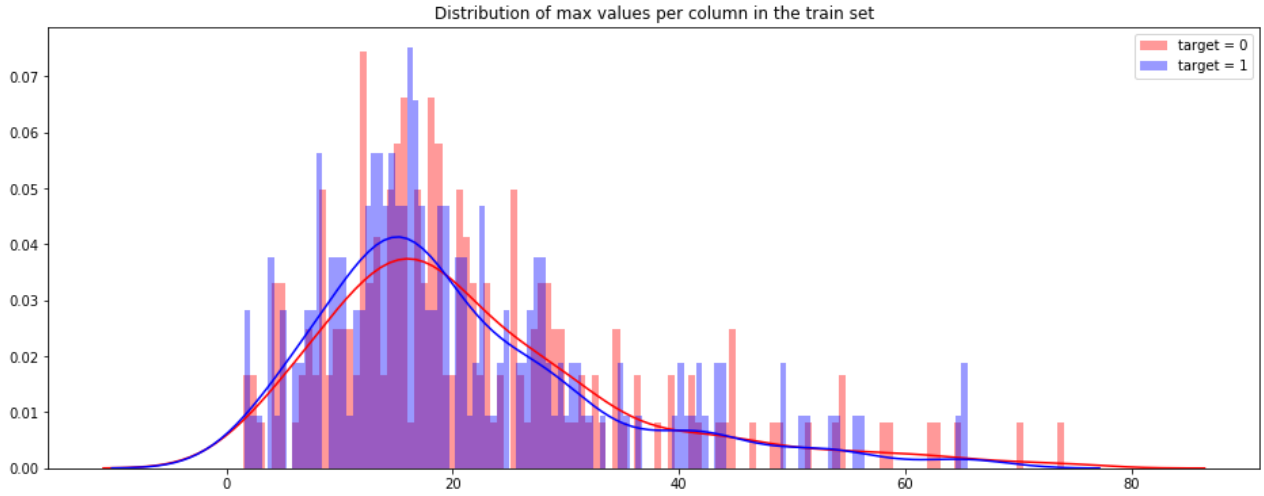

Distribution of max values per row in the train and test set
train
test
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
20
30
40
50
60
70
80

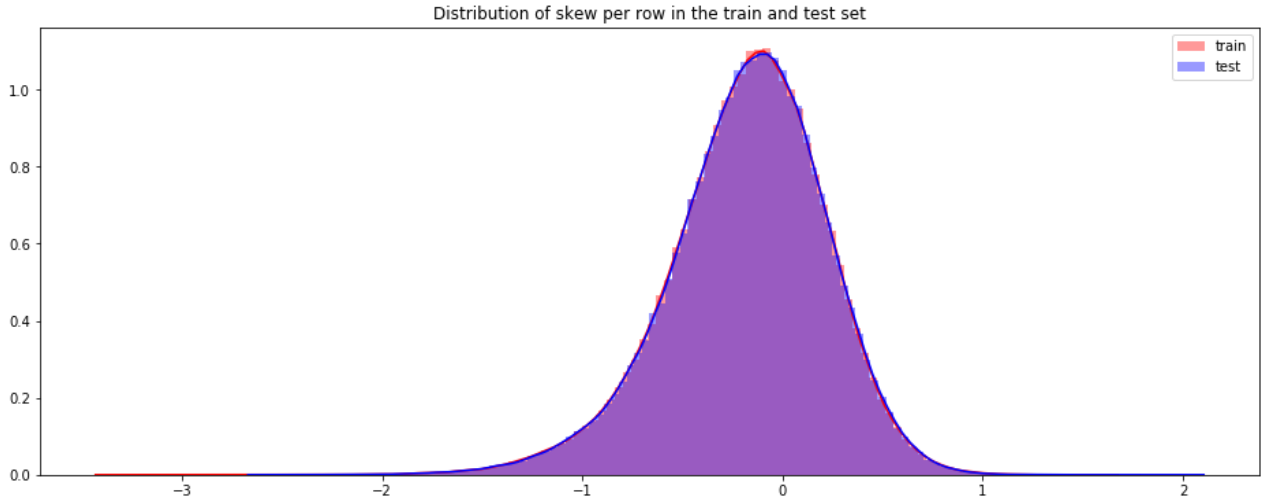

Distribution of max values per column in the train and test set
train
test
0.08
0.06
0.04
0.02
0.00
0
20
40
60
80
100

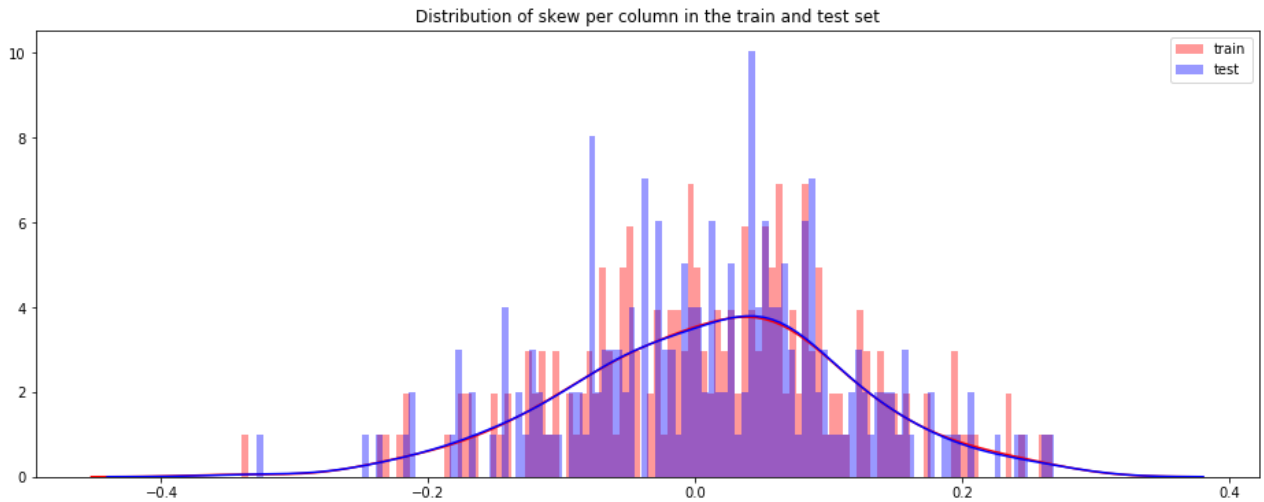

Distribution of min values per row in the train set
target = 0
target = 1
0.05
0.04
0.03
0.02
0.01
0.00
−80
−60
−40
−20

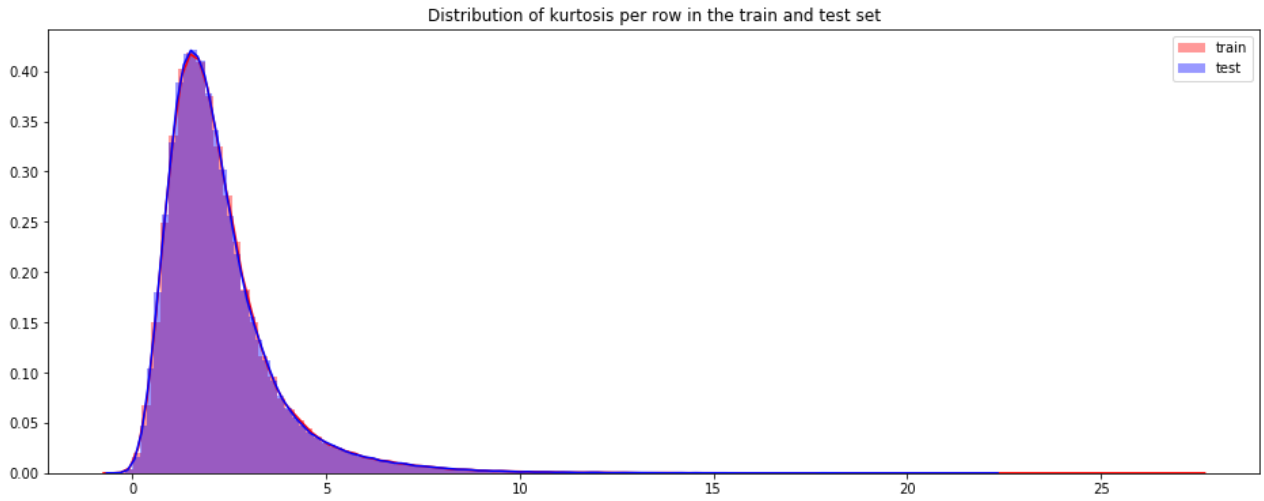

Distribution of min values per column in the train set
target = 0
target = 1
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−100
−80
−60
−40
−20
0
20

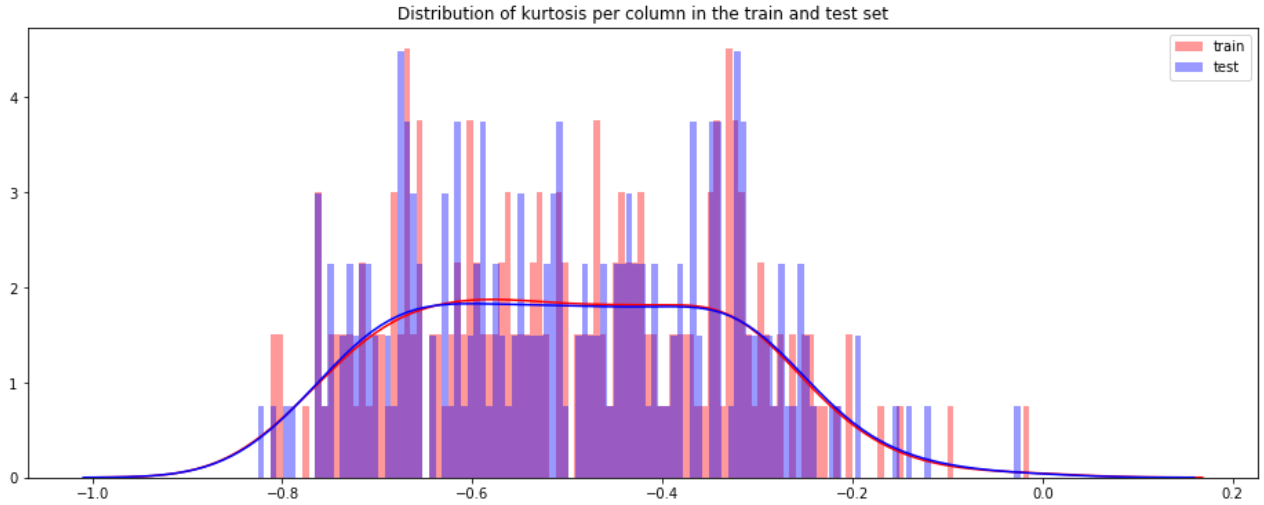

Distribution of max values per row in the train set
target = 0
target = 1
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
20
30
40
50
60
70

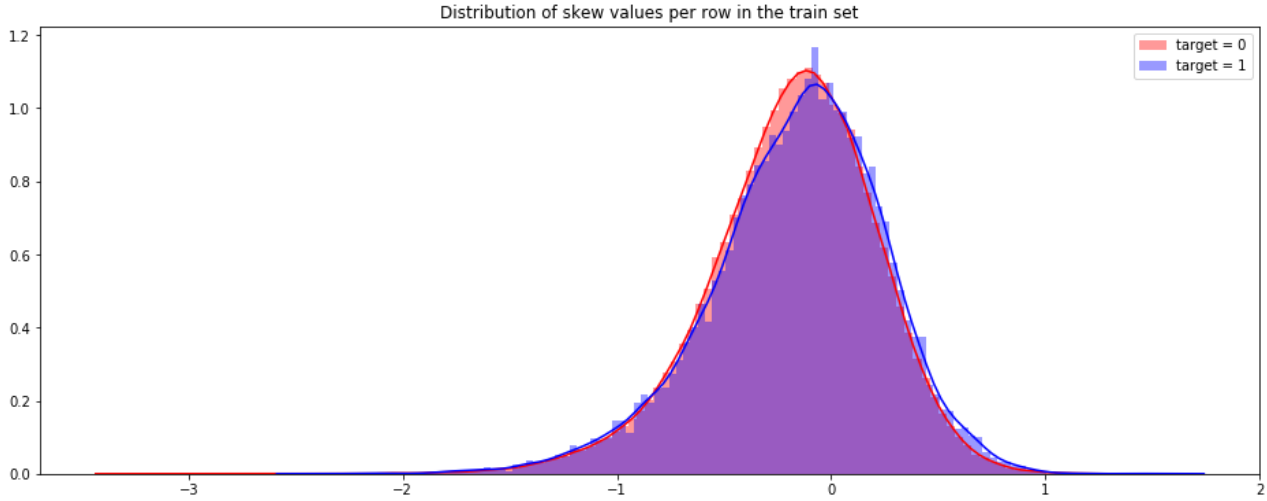

Distribution of max values per column in the train set
target = 0
target = 1
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
0
20
40
60
80

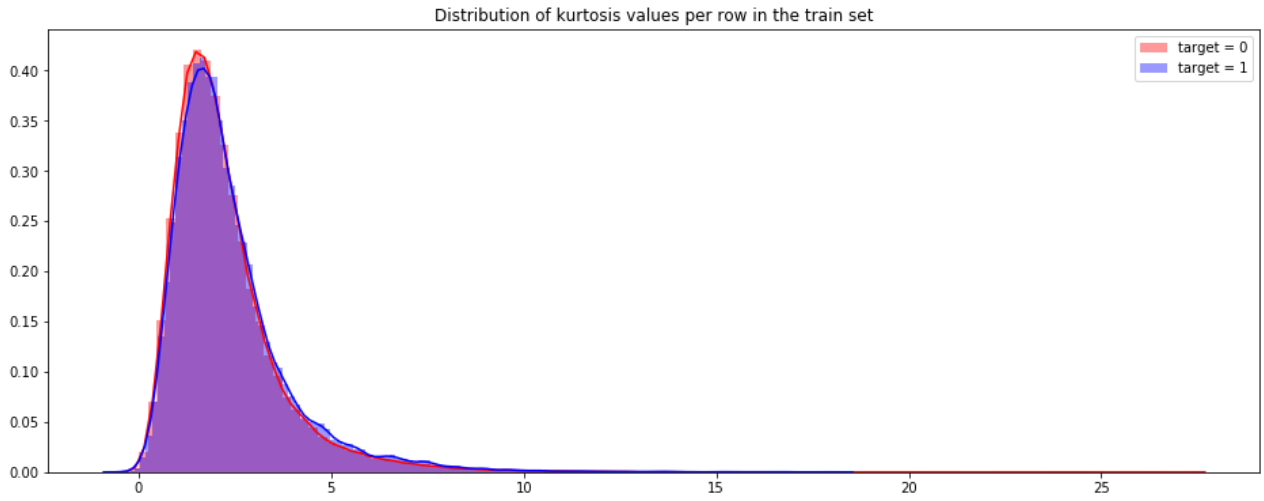

Distribution of skew per row in the train and test set
train
test
1.0
0.8
0.6
0.4
0.2
0.0
−3
−2
−1
0
1
2

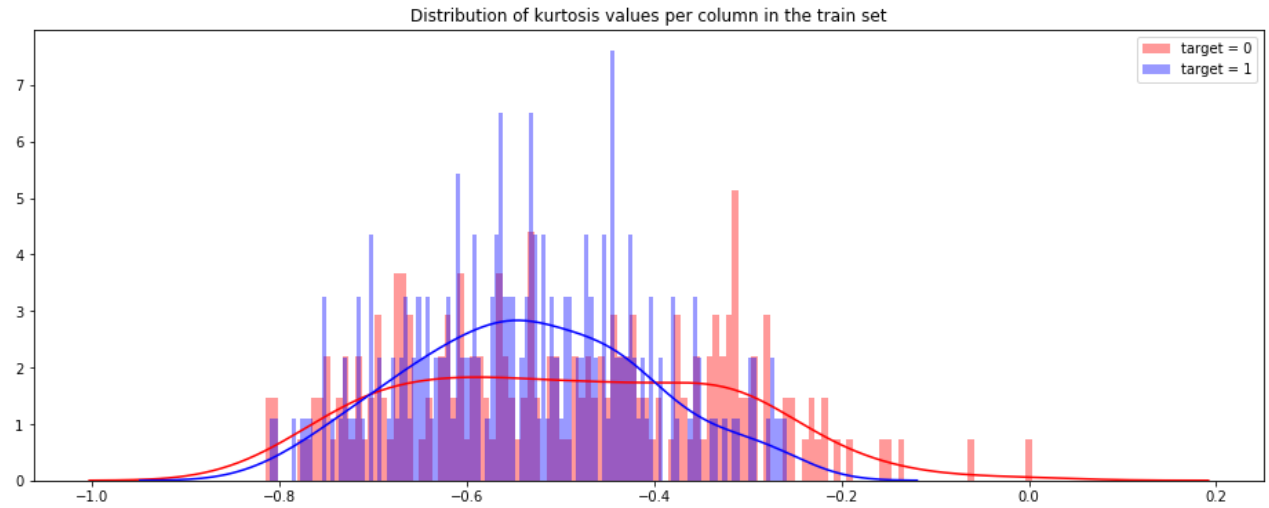

Distribution of skew per column in the train and test set
train
test
10
8
6
4
2
0
−0.4
−0.2
0.0
0.2
0.4


Distribution of kurtosis per row in the train and test set
train
test
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0
5
10
15
20
25


Distribution of kurtosis per column in the train and test set
train
test
4
3
2
1
0
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2


Distribution of skew values per row in the train set
target = 0
target = 1
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−3
−2
−1
0
1
2


Distribution of kurtosis values per row in the train set
target = 0
target = 1
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0
5
10
15
20
25




# Pre-processing And Data Preparation

### correlations

In [33]:
```
%%time
correlations = train_data[features].corr().abs().unstack().sort_values(k
ind="quicksort").reset_index()
correlations = correlations[correlations['level_0'] != correlations['lev
el_1']]
correlations.head(10)
```

```
Wall time: 19.1 s
```

In [34]:
```
correlations.tail(10)
```

Out[34]:

| | level_0 | level_1 | 0 |
|---|---|---|---|
| **39790** | var_183 | var_189 | 0.009359 |
| **39791** | var_189 | var_183 | 0.009359 |
| **39792** | var_174 | var_81 | 0.009490 |
| **39793** | var_81 | var_174 | 0.009490 |
| **39794** | var_81 | var_165 | 0.009714 |
| **39795** | var_165 | var_81 | 0.009714 |
| **39796** | var_53 | var_148 | 0.009788 |
| **39797** | var_148 | var_53 | 0.009788 |
| **39798** | var_26 | var_139 | 0.009844 |
| **39799** | var_139 | var_26 | 0.009844 |

In [35]:
```
correlations.head(10)
```

Out[35]:

| | level_0 | level_1 | 0 |
|---|---|---|---|
| **0** | var_75 | var_191 | 2.703975e-08 |
| **1** | var_191 | var_75 | 2.703975e-08 |
| **2** | var_173 | var_6 | 5.942735e-08 |
| **3** | var_6 | var_173 | 5.942735e-08 |
| **4** | var_126 | var_109 | 1.313947e-07 |
| **5** | var_109 | var_126 | 1.313947e-07 |
| **6** | var_144 | var_27 | 1.772502e-07 |
| **7** | var_27 | var_144 | 1.772502e-07 |
| **8** | var_177 | var_100 | 3.116544e-07 |
| **9** | var_100 | var_177 | 3.116544e-07 |

In [36]:
```
features = train_data.columns.values[2:202]
unique_max_train = []
unique_max_test = []
for feature in features:
    values = train_data[feature].value_counts()
    unique_max_train.append([feature, values.max(), values.idxmax()])
    values = test_data[feature].value_counts()
    unique_max_test.append([feature, values.max(), values.idxmax()])
```

In [37]:
```
np.transpose((pd.DataFrame(unique_max_train, columns=['Feature', 'Max duplicates', 'Value'])).\
             sort_values(by = 'Max duplicates', ascending=False).head(15))
```

Out[37]:

| | 68 | 108 | 126 | 12 | 91 | 103 | 148 | 7 |
|---|---|---|---|---|---|---|---|---|
| **Feature** | var_68 | var_108 | var_126 | var_12 | var_91 | var_103 | var_148 | var_7 |
| **Max duplicates** | 1084 | 313 | 305 | 203 | 66 | 61 | 59 | 5 |
| **Value** | 5.0214 | 14.1999 | 11.5356 | 13.5545 | 6.9785 | 1.6662 | 4.0456 | 0.703 |

In [38]:
```
np.transpose((pd.DataFrame(unique_max_test, columns=['Feature', 'Max dup
licates', 'Value'])).\
             sort_values(by = 'Max duplicates', ascending=False).head(15
))
```

Out[38]:

| | 68 | 126 | 108 | 12 | 91 | 103 | 148 | 1 |
|---|---|---|---|---|---|---|---|---|
| **Feature** | var_68 | var_126 | var_108 | var_12 | var_91 | var_103 | var_148 | var_1 |
| **Max duplicates** | 1104 | 307 | 302 | 188 | 86 | 78 | 74 | |
| **Value** | 5.0197 | 11.5357 | 14.1999 | 13.5546 | 6.9939 | 1.4659 | 4.0004 | 5.71 |

In [4]:
```
targettotrain = train_data['target']
featurestotrain = train_data.drop(['ID_code', 'target'], axis=1)
featurestotest = test_data.drop(['ID_code'], axis=1)
```

In [11]:
```
from sklearn.model_selection import train_test_split

train_target = train_data['target']
train_modified = train_data.iloc[:,2:]
test_modified = test_data.iloc[:,1:]

X_train, x_test, y_train, y_test = train_test_split(train_modified, trai
n_target, random_state = 13, test_size = 0.3)

pd.DataFrame(data=x_train).head(3)
```

Out[11]:

| | var_0 | var_1 | var_2 | var_3 | var_4 | var_5 | var_6 | var_7 |
|---|---|---|---|---|---|---|---|---|
| **61092** | 11.0156 | -1.7036 | 13.6113 | 10.7284 | 11.3013 | 3.5456 | 4.6526 | 11.0551 |
| **77702** | 4.5837 | 2.8545 | 8.2859 | 6.8230 | 14.4487 | 2.0574 | 5.2793 | 14.4021 |
| **19517** | 9.2443 | -7.7795 | 9.6477 | 8.1215 | 11.6240 | -9.6645 | 5.6095 | 21.3256 |

3 rows × 200 columns

In [5]:
```
X = train_data.drop(["target","ID_code"], axis=1)
y = train_data["target"]
X_train, x_test, y_train, y_test  = train_test_split(X, y, test_size=0.2
, random_state=123)
```

In [6]:
```
pd.DataFrame(data=y_train).head(3)
```

Out[6]:

| | target |
|---|---|
| **125714** | 0 |
| **149585** | 0 |
| **27244** | 0 |

In [7]:
```
pd.DataFrame(data=X_train).head(3)
```

Out[7]:

| | var_0 | var_1 | var_2 | var_3 | var_4 | var_5 | var_6 | var_7 |
|---|---|---|---|---|---|---|---|---|
| **125714** | 11.4791 | 0.4721 | 11.6491 | 2.8147 | 11.9129 | -3.5222 | 4.7829 | 21.0751 |
| **149585** | 9.9893 | 4.9190 | 17.1635 | 5.6806 | 11.0406 | -11.3340 | 6.0441 | 17.5113 |
| **27244** | 12.8085 | -2.6705 | 5.9245 | 5.9104 | 11.4729 | -13.1428 | 5.2582 | 16.0739 |

3 rows × 200 columns

In [8]:
```
from sklearn.manifold import TSNE
from sklearn import preprocessing
import pandas as pd
from multiprocessing import Process# this is used for multithreading
import multiprocessing
import codecs# this is used for file operations
import random as r
#from xgboost import XGBClassifier
from sklearn.model_selection import RandomizedSearchCV
from sklearn.tree import DecisionTreeClassifier
from sklearn.calibration import CalibratedClassifierCV
from sklearn.neighbors import KNeighborsClassifier
from sklearn.metrics import log_loss
from sklearn.metrics import confusion_matrix
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LogisticRegression
from sklearn.ensemble import RandomForestClassifier
```

# Machine Learning models

## XgBoost

In [9]:

```
def xgb_model(folds, param_comb, X_train, x_test, y_train, y_test, save_
file):
    """

    """

    skf = StratifiedKFold(n_splits=folds, shuffle = True, random_state =
123)

    xgb = XGBClassifier(n_jobs=1, random_state=123)
    params = {"learning_rate":ss.uniform(0.001,0.5),
              "n_estimators":ss.randint(10,1000),
              "max_depth": ss.randint(3,25),
              "min_child_weight":ss.randint(1,15),
              "gamma": ss.randint(0,10),
              "subsample": [0.5, 0.6, 0.7, 0.8, 0.9, 1.0],
              "colsample_bytree": [0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0],
              "reg_lambda":ss.uniform(0.05,5),
              "reg_alpha":ss.uniform(0.05,5)}


    model_xgb =  RandomizedSearchCV(estimator=xgb,
                                    param_distributions=params,
                                    n_iter=param_comb,
                                    scoring='roc_auc',
                                    n_jobs=1,
                                    cv=skf.split(X_train, y_train),
                                    verbose=3,
                                    random_state=123)


    model_xgb.fit(X_train, y_train)
    scores = dict()
    scores["train_dataset"] = {
        "Accuracy": np.round(accuracy_score(model_xgb.best_estimator_.pr
edict(X_train), y_train), 4),
        "AUC": np.round(roc_auc_score(y_train, model_xgb.best_estimator_
.predict_proba(X_train)[:, 1]), 4)
      }
    scores["validation_dataset"] = {
        "Accuracy":np.round(accuracy_score(model_xgb.best_estimator_.pre
dict(x_test), y_test), 4),
        "AUC": np.round(roc_auc_score(y_test, model_xgb.best_estimator_.
predict_proba(x_test)[:, 1]), 4)
      }
    pickle.dump(model_xgb.best_estimator_, open(save_file, 'wb'))
    return model_xgb, scores
```

In [10]:

```
folds = 3
param_comb = 3
xgb = xgb_model(folds, param_comb,X_train, x_test, y_train, y_test, 'xg
b.sav')
print(f"XGB: {xgb[1]}")
model_xgb = pickle.load(open('xgb.sav', 'rb'))
```

```
Fitting 3 folds for each of 3 candidates, totalling 9 fits
[CV] colsample_bytree=1.0, gamma=2, learning_rate=0.11442572678210156, m
ax_depth=9, min_child_weight=2, n_estimators=605, reg_alpha=2.5055946671
62986, reg_lambda=3.9501388095603955, subsample=0.6

[Parallel(n_jobs=1)]: Using backend SequentialBackend with 1 concurrent
workers.

[CV]  colsample_bytree=1.0, gamma=2, learning_rate=0.11442572678210156,
max_depth=9, min_child_weight=2, n_estimators=605, reg_alpha=2.505594667
162986, reg_lambda=3.9501388095603955, subsample=0.6, score=0.8783566631
988908, total=55.0min
[CV] colsample_bytree=1.0, gamma=2, learning_rate=0.11442572678210156, m
ax_depth=9, min_child_weight=2, n_estimators=605, reg_alpha=2.5055946671
62986, reg_lambda=3.9501388095603955, subsample=0.6

[Parallel(n_jobs=1)]: Done   1 out of   1 | elapsed: 55.2min remaining:
0.0s

[CV]  colsample_bytree=1.0, gamma=2, learning_rate=0.11442572678210156,
max_depth=9, min_child_weight=2, n_estimators=605, reg_alpha=2.505594667
162986, reg_lambda=3.9501388095603955, subsample=0.6, score=0.8793912641
371294, total=49.4min
[CV] colsample_bytree=1.0, gamma=2, learning_rate=0.11442572678210156, m
ax_depth=9, min_child_weight=2, n_estimators=605, reg_alpha=2.5055946671
62986, reg_lambda=3.9501388095603955, subsample=0.6

[Parallel(n_jobs=1)]: Done   2 out of   2 | elapsed: 104.8min remaining:
0.0s
```

```
[CV]  colsample_bytree=1.0, gamma=2, learning_rate=0.11442572678210156,
max_depth=9, min_child_weight=2, n_estimators=605, reg_alpha=2.505594667
162986, reg_lambda=3.9501388095603955, subsample=0.6, score=0.8800726872
917852, total=49.6min
[CV] colsample_bytree=0.4, gamma=1, learning_rate=0.24146595074218047, m
ax_depth=12, min_child_weight=1, n_estimators=952, reg_alpha=3.186585046
688083, reg_lambda=1.6707544668977052, subsample=1.0
[CV]  colsample_bytree=0.4, gamma=1, learning_rate=0.24146595074218047,
max_depth=12, min_child_weight=1, n_estimators=952, reg_alpha=3.18658504
6688083, reg_lambda=1.6707544668977052, subsample=1.0, score=0.871303053
4329216, total=54.9min
[CV] colsample_bytree=0.4, gamma=1, learning_rate=0.24146595074218047, m
ax_depth=12, min_child_weight=1, n_estimators=952, reg_alpha=3.186585046
688083, reg_lambda=1.6707544668977052, subsample=1.0
[CV]  colsample_bytree=0.4, gamma=1, learning_rate=0.24146595074218047,
max_depth=12, min_child_weight=1, n_estimators=952, reg_alpha=3.18658504
6688083, reg_lambda=1.6707544668977052, subsample=1.0, score=0.873034103
0667256, total=54.9min
[CV] colsample_bytree=0.4, gamma=1, learning_rate=0.24146595074218047, m
ax_depth=12, min_child_weight=1, n_estimators=952, reg_alpha=3.186585046
688083, reg_lambda=1.6707544668977052, subsample=1.0
[CV]  colsample_bytree=0.4, gamma=1, learning_rate=0.24146595074218047,
max_depth=12, min_child_weight=1, n_estimators=952, reg_alpha=3.18658504
6688083, reg_lambda=1.6707544668977052, subsample=1.0, score=0.876218288
9304233, total=54.6min
[CV] colsample_bytree=0.8, gamma=0, learning_rate=0.29795119983701185, m
ax_depth=20, min_child_weight=8, n_estimators=461, reg_alpha=0.927258780
7374627, reg_lambda=2.7077568692091916, subsample=0.9
[CV]  colsample_bytree=0.8, gamma=0, learning_rate=0.29795119983701185,
max_depth=20, min_child_weight=8, n_estimators=461, reg_alpha=0.92725878
07374627, reg_lambda=2.7077568692091916, subsample=0.9, score=0.87337271
19791519, total=41.5min
[CV] colsample_bytree=0.8, gamma=0, learning_rate=0.29795119983701185, m
ax_depth=20, min_child_weight=8, n_estimators=461, reg_alpha=0.927258780
7374627, reg_lambda=2.7077568692091916, subsample=0.9
[CV]  colsample_bytree=0.8, gamma=0, learning_rate=0.29795119983701185,
max_depth=20, min_child_weight=8, n_estimators=461, reg_alpha=0.92725878
07374627, reg_lambda=2.7077568692091916, subsample=0.9, score=0.87215223
27903496, total=41.7min
[CV] colsample_bytree=0.8, gamma=0, learning_rate=0.29795119983701185, m
ax_depth=20, min_child_weight=8, n_estimators=461, reg_alpha=0.927258780
7374627, reg_lambda=2.7077568692091916, subsample=0.9
[CV]  colsample_bytree=0.8, gamma=0, learning_rate=0.29795119983701185,
max_depth=20, min_child_weight=8, n_estimators=461, reg_alpha=0.92725878
07374627, reg_lambda=2.7077568692091916, subsample=0.9, score=0.87658269
94306036, total=41.5min

[Parallel(n_jobs=1)]: Done   9 out of   9 | elapsed: 444.5min finished

XGB: {'train_dataset': {'Accuracy': 0.9974, 'AUC': 1.0}, 'validation_dat
aset': {'Accuracy': 0.9172, 'AUC': 0.8817}}
```

In [11]:
```
print(f"XGB: {xgb[0]}")
```

```
XGB: RandomizedSearchCV(cv=<generator object _BaseKFold.split at 0x00000
12B812D1138>,
          error_score='raise-deprecating',
          estimator=XGBClassifier(base_score=0.5, booster='gbtree', cols
ample_bylevel=1,
       colsample_bytree=1, gamma=0, learning_rate=0.1, max_delta_step=0,
       max_depth=3, min_child_weight=1, missing=None, n_estimators=100,
       n_jobs=1, nthread=None, objective='binary:logistic',
       random_state=123, reg_alpha=0, reg_lambda=1, scale_pos_weight=1,
       seed=None, silent=True, subsample=1),
          fit_params=None, iid='warn', n_iter=3, n_jobs=1,
          param_distributions={'learning_rate': <scipy.stats._distn_infr
astructure.rv_frozen object at 0x0000012B812A8160>, 'n_estimators': <sci
py.stats._distn_infrastructure.rv_frozen object at 0x0000012B812A8668>,
'max_depth': <scipy.stats._distn_infrastructure.rv_frozen object at 0x00
00012B812A83C8>, 'min_...B812A8DD8>, 'reg_alpha': <scipy.stats._distn_in
frastructure.rv_frozen object at 0x0000012B812A8CF8>},
          pre_dispatch='2*n_jobs', random_state=123, refit=True,
          return_train_score='warn', scoring='roc_auc', verbose=3)
```

# LGBMClassifier

In [18]:
```
import lightgbm as lgb
from lightgbm import LGBMModel,LGBMClassifier
```

In [48]:

```
def lgb_model(folds, param_comb, X_train, y_train, x_test, y_test, save_
file):
    """

    """

    skf = StratifiedKFold(n_splits=folds, shuffle = True, random_state =
123)

    lgb = LGBMClassifier(n_jobs=1, random_state=123)
    params = {"num_leaves":ss.randint(2,50),
              "max_depth": [1 ,2,4,6,8,10],
              "learning_rate":ss.uniform(0.001,0.5),
              "n_estimators":ss.randint(10,1000),
              "objective": ["binary"],
              "class_weight": ["balanced"],
              "subsample": [ 0.6, 0.7, 0.8, 0.9, 1.0],
              "colsample_bytree": [ 0.5, 0.6, 0.7, 0.8, 0.9, 1.0],
              "reg_lambda":ss.uniform(0.05,5),
              "reg_alpha":ss.uniform(0.05,5),
              "min_child_weight":ss.randint(1,15)}


    model_lgb =  RandomizedSearchCV(estimator=lgb,
                                    param_distributions=params,
                                    n_iter=param_comb,
                                    scoring='roc_auc',
                                    n_jobs=1,
                                    cv=skf.split(X_train, y_train),
                                    verbose=3,
                                    random_state=123)


    model_lgb.fit(X_train, y_train, )
    scores = dict()
    scores["train_dataset"] = {
        "Accuracy": np.round(accuracy_score(model_lgb.best_estimator_.pr
edict(X_train), y_train), 4),
        "AUC": np.round(roc_auc_score(y_train, model_lgb.best_estimator_
.predict_proba(X_train)[:, 1]), 4)
      }
    scores["validation_dataset"] = {
        "Accuracy":np.round(accuracy_score(model_lgb.best_estimator_.pre
dict(x_test), y_test), 4),
        "AUC": np.round(roc_auc_score(y_test, model_lgb.best_estimator_.
predict_proba(x_test)[:, 1]), 4)
      }
    pickle.dump(model_lgb.best_estimator_, open(save_file, 'wb'))
    return model_lgb, scores
```

In [49]:

```
folds = 3
param_comb = 5
lgb = lgb_model(folds, param_comb, X_train, y_train,x_test, y_test ,'lg
b.sav')
print(f"LGB: {lgb[1]}")
model_lgb = pickle.load(open('lgb.sav', 'rb'))
```

```
Fitting 3 folds for each of 5 candidates, totalling 15 fits
[CV] class_weight=balanced, colsample_bytree=1.0, learning_rate=0.144069
66747518973, max_depth=8, min_child_weight=3, n_estimators=752, num_leav
es=19, objective=binary, reg_alpha=3.647344848927815, reg_lambda=2.16553
23006223046, subsample=0.7

[Parallel(n_jobs=1)]: Using backend SequentialBackend with 1 concurrent
workers.

[CV]  class_weight=balanced, colsample_bytree=1.0, learning_rate=0.14406
966747518973, max_depth=8, min_child_weight=3, n_estimators=752, num_lea
ves=19, objective=binary, reg_alpha=3.647344848927815, reg_lambda=2.1655
323006223046, subsample=0.7, score=0.8798577703633413, total= 1.6min
[CV] class_weight=balanced, colsample_bytree=1.0, learning_rate=0.144069
66747518973, max_depth=8, min_child_weight=3, n_estimators=752, num_leav
es=19, objective=binary, reg_alpha=3.647344848927815, reg_lambda=2.16553
23006223046, subsample=0.7

[Parallel(n_jobs=1)]: Done   1 out of   1 | elapsed:  1.7min remaining:
0.0s

[CV]  class_weight=balanced, colsample_bytree=1.0, learning_rate=0.14406
966747518973, max_depth=8, min_child_weight=3, n_estimators=752, num_lea
ves=19, objective=binary, reg_alpha=3.647344848927815, reg_lambda=2.1655
323006223046, subsample=0.7, score=0.8800819125164528, total= 1.7min
[CV] class_weight=balanced, colsample_bytree=1.0, learning_rate=0.144069
66747518973, max_depth=8, min_child_weight=3, n_estimators=752, num_leav
es=19, objective=binary, reg_alpha=3.647344848927815, reg_lambda=2.16553
23006223046, subsample=0.7

[Parallel(n_jobs=1)]: Done   2 out of   2 | elapsed:  3.5min remaining:
0.0s
```

```
[CV]  class_weight=balanced, colsample_bytree=1.0, learning_rate=0.14406
966747518973, max_depth=8, min_child_weight=3, n_estimators=752, num_lea
ves=19, objective=binary, reg_alpha=3.647344848927815, reg_lambda=2.1655
323006223046, subsample=0.7, score=0.8809420274324905, total= 1.6min
[CV] class_weight=balanced, colsample_bytree=0.5, learning_rate=0.290847
14851130505, max_depth=2, min_child_weight=1, n_estimators=952, num_leav
es=34, objective=binary, reg_alpha=3.695248536920208, reg_lambda=2.24286
12233981218, subsample=1.0
[CV]  class_weight=balanced, colsample_bytree=0.5, learning_rate=0.29084
714851130505, max_depth=2, min_child_weight=1, n_estimators=952, num_lea
ves=34, objective=binary, reg_alpha=3.695248536920208, reg_lambda=2.2428
612233981218, subsample=1.0, score=0.8875243298948033, total=  32.1s
[CV] class_weight=balanced, colsample_bytree=0.5, learning_rate=0.290847
14851130505, max_depth=2, min_child_weight=1, n_estimators=952, num_leav
es=34, objective=binary, reg_alpha=3.695248536920208, reg_lambda=2.24286
12233981218, subsample=1.0
[CV]  class_weight=balanced, colsample_bytree=0.5, learning_rate=0.29084
714851130505, max_depth=2, min_child_weight=1, n_estimators=952, num_lea
ves=34, objective=binary, reg_alpha=3.695248536920208, reg_lambda=2.2428
612233981218, subsample=1.0, score=0.8859437438142173, total=  31.9s
[CV] class_weight=balanced, colsample_bytree=0.5, learning_rate=0.290847
14851130505, max_depth=2, min_child_weight=1, n_estimators=952, num_leav
es=34, objective=binary, reg_alpha=3.695248536920208, reg_lambda=2.24286
12233981218, subsample=1.0
[CV]  class_weight=balanced, colsample_bytree=0.5, learning_rate=0.29084
714851130505, max_depth=2, min_child_weight=1, n_estimators=952, num_lea
ves=34, objective=binary, reg_alpha=3.695248536920208, reg_lambda=2.2428
612233981218, subsample=1.0, score=0.8879435276468068, total=  31.9s
[CV] class_weight=balanced, colsample_bytree=0.5, learning_rate=0.297951
19983701185, max_depth=2, min_child_weight=8, n_estimators=461, num_leav
es=4, objective=binary, reg_alpha=0.46863242281792167, reg_lambda=3.6116
50906943812, subsample=0.6
[CV]  class_weight=balanced, colsample_bytree=0.5, learning_rate=0.29795
119983701185, max_depth=2, min_child_weight=8, n_estimators=461, num_lea
ves=4, objective=binary, reg_alpha=0.46863242281792167, reg_lambda=3.611
650906943812, subsample=0.6, score=0.8857799902047815, total=  18.3s
[CV] class_weight=balanced, colsample_bytree=0.5, learning_rate=0.297951
19983701185, max_depth=2, min_child_weight=8, n_estimators=461, num_leav
es=4, objective=binary, reg_alpha=0.46863242281792167, reg_lambda=3.6116
50906943812, subsample=0.6
[CV]  class_weight=balanced, colsample_bytree=0.5, learning_rate=0.29795
119983701185, max_depth=2, min_child_weight=8, n_estimators=461, num_lea
ves=4, objective=binary, reg_alpha=0.46863242281792167, reg_lambda=3.611
650906943812, subsample=0.6, score=0.8837121838236044, total=  18.8s
[CV] class_weight=balanced, colsample_bytree=0.5, learning_rate=0.297951
19983701185, max_depth=2, min_child_weight=8, n_estimators=461, num_leav
es=4, objective=binary, reg_alpha=0.46863242281792167, reg_lambda=3.6116
50906943812, subsample=0.6
[CV]  class_weight=balanced, colsample_bytree=0.5, learning_rate=0.29795
119983701185, max_depth=2, min_child_weight=8, n_estimators=461, num_lea
ves=4, objective=binary, reg_alpha=0.46863242281792167, reg_lambda=3.611
650906943812, subsample=0.6, score=0.8861656308044005, total=  18.3s
[CV] class_weight=balanced, colsample_bytree=1.0, learning_rate=0.425715
8970388948, max_depth=2, min_child_weight=4, n_estimators=390, num_leave
s=30, objective=binary, reg_alpha=3.6622169128511075, reg_lambda=1.66479
45692658912, subsample=0.9
[CV]  class_weight=balanced, colsample_bytree=1.0, learning_rate=0.42571
58970388948, max_depth=2, min_child_weight=4, n_estimators=390, num_leav
```

```
es=30, objective=binary, reg_alpha=3.6622169128511075, reg_lambda=1.6647
945692658912, subsample=0.9, score=0.8842285602048833, total=  27.7s
[CV] class_weight=balanced, colsample_bytree=1.0, learning_rate=0.425715
8970388948, max_depth=2, min_child_weight=4, n_estimators=390, num_leave
s=30, objective=binary, reg_alpha=3.6622169128511075, reg_lambda=1.66479
45692658912, subsample=0.9
[CV]  class_weight=balanced, colsample_bytree=1.0, learning_rate=0.42571
58970388948, max_depth=2, min_child_weight=4, n_estimators=390, num_leav
es=30, objective=binary, reg_alpha=3.6622169128511075, reg_lambda=1.6647
945692658912, subsample=0.9, score=0.8800594345301865, total=  28.9s
[CV] class_weight=balanced, colsample_bytree=1.0, learning_rate=0.425715
8970388948, max_depth=2, min_child_weight=4, n_estimators=390, num_leave
s=30, objective=binary, reg_alpha=3.6622169128511075, reg_lambda=1.66479
45692658912, subsample=0.9
[CV]  class_weight=balanced, colsample_bytree=1.0, learning_rate=0.42571
58970388948, max_depth=2, min_child_weight=4, n_estimators=390, num_leav
es=30, objective=binary, reg_alpha=3.6622169128511075, reg_lambda=1.6647
945692658912, subsample=0.9, score=0.8844177739677097, total=  27.6s
[CV] class_weight=balanced, colsample_bytree=0.7, learning_rate=0.147857
02319441468, max_depth=1, min_child_weight=4, n_estimators=116, num_leav
es=7, objective=binary, reg_alpha=2.218505863397641, reg_lambda=2.204313
816648219, subsample=0.8
[CV]  class_weight=balanced, colsample_bytree=0.7, learning_rate=0.14785
702319441468, max_depth=1, min_child_weight=4, n_estimators=116, num_lea
ves=7, objective=binary, reg_alpha=2.218505863397641, reg_lambda=2.20431
3816648219, subsample=0.8, score=0.8077005468997113, total=   8.9s
[CV] class_weight=balanced, colsample_bytree=0.7, learning_rate=0.147857
02319441468, max_depth=1, min_child_weight=4, n_estimators=116, num_leav
es=7, objective=binary, reg_alpha=2.218505863397641, reg_lambda=2.204313
816648219, subsample=0.8
[CV]  class_weight=balanced, colsample_bytree=0.7, learning_rate=0.14785
702319441468, max_depth=1, min_child_weight=4, n_estimators=116, num_lea
ves=7, objective=binary, reg_alpha=2.218505863397641, reg_lambda=2.20431
3816648219, subsample=0.8, score=0.8012990143561174, total=   9.1s
[CV] class_weight=balanced, colsample_bytree=0.7, learning_rate=0.147857
02319441468, max_depth=1, min_child_weight=4, n_estimators=116, num_leav
es=7, objective=binary, reg_alpha=2.218505863397641, reg_lambda=2.204313
816648219, subsample=0.8
[CV]  class_weight=balanced, colsample_bytree=0.7, learning_rate=0.14785
702319441468, max_depth=1, min_child_weight=4, n_estimators=116, num_lea
ves=7, objective=binary, reg_alpha=2.218505863397641, reg_lambda=2.20431
3816648219, subsample=0.8, score=0.808684235503031, total=   8.7s

[Parallel(n_jobs=1)]: Done  15 out of  15 | elapsed: 10.0min finished

LGB: {'train_dataset': {'Accuracy': 0.8677, 'AUC': 0.9429}, 'validation_
dataset': {'Accuracy': 0.8464, 'AUC': 0.8916}}
```

# CatBoostClassifier

In [64]:

```
from catboost import CatBoostClassifier
def cat_model(folds, param_comb, X_train, y_train, X_val, y_val, save_file):
    """

    """

    skf = StratifiedKFold(n_splits=folds, shuffle = True, random_state = 123)

    cat = CatBoostClassifier( random_state=123)
    params = {'depth':[6,7,8,9,10],
          'iterations':[250,100,500,1000],
          'learning_rate':[0.03,0.001,0.01,0.1,0.2,0.3],
          'l2_leaf_reg':[3,1,5,10,100],
          'border_count':[32,5,10,20,50,100],
          'ctr_border_count':[50,5,10,20,100,200]}


    model_cat =  RandomizedSearchCV(estimator=cat,
                                    param_distributions=params,
                                    n_iter=param_comb,
                                    scoring='roc_auc',
                                    cv=skf.split(X_train, y_train),
                                    verbose=3,
                                    random_state=123)


    model_cat.fit(X_train, y_train,)
    scores = dict()
    scores["train_dataset"] = {
        "Accuracy": np.round(accuracy_score(model_cat.best_estimator_.predict(X_train), y_train), 4),
        "AUC": np.round(roc_auc_score(y_train, model_cat.best_estimator_.predict_proba(X_train)[:, 1]), 4)
      }
    scores["validation_dataset"] = {
        "Accuracy":np.round(accuracy_score(model_cat.best_estimator_.predict(x_test), y_test), 4),
        "AUC": np.round(roc_auc_score(y_test, model_cat.best_estimator_.predict_proba(x_test)[:, 1]), 4)
      }
    pickle.dump(model_cat.best_estimator_, open(save_file, 'wb'))
    return model_cat, scores
```

In [65]:

```
folds = 3
param_comb = 5
cat = cat_model(folds, param_comb, X_train, y_train,x_test, y_test ,'ca
t.sav')
print(f"cat: {cat[1]}")
model_lgb = pickle.load(open('cat.sav', 'rb'))
```

```
Fitting 3 folds for each of 5 candidates, totalling 15 fits
[CV] learning_rate=0.2, l2_leaf_reg=5, iterations=100, depth=7, ctr_bord
er_count=20, border_count=100

[Parallel(n_jobs=1)]: Using backend SequentialBackend with 1 concurrent
workers.
```

```
0:      learn: 0.5381766        total: 538ms    remaining: 53.3s
1:      learn: 0.4496596        total: 715ms    remaining: 35s
2:      learn: 0.3943722        total: 883ms    remaining: 28.6s
3:      learn: 0.3601417        total: 1.04s    remaining: 24.9s
4:      learn: 0.3382864        total: 1.19s    remaining: 22.7s
5:      learn: 0.3249410        total: 1.34s    remaining: 21s
6:      learn: 0.3151989        total: 1.5s     remaining: 19.9s
7:      learn: 0.3081621        total: 1.64s    remaining: 18.9s
8:      learn: 0.3027788        total: 1.77s    remaining: 17.9s
9:      learn: 0.2985392        total: 1.9s     remaining: 17.1s
10:     learn: 0.2945980        total: 2.02s    remaining: 16.4s
11:     learn: 0.2913805        total: 2.16s    remaining: 15.9s
12:     learn: 0.2888245        total: 2.29s    remaining: 15.4s
13:     learn: 0.2862909        total: 2.41s    remaining: 14.8s
14:     learn: 0.2839139        total: 2.54s    remaining: 14.4s
15:     learn: 0.2818099        total: 2.68s    remaining: 14.1s
16:     learn: 0.2799086        total: 2.81s    remaining: 13.7s
17:     learn: 0.2778067        total: 2.94s    remaining: 13.4s
18:     learn: 0.2757857        total: 3.06s    remaining: 13.1s
19:     learn: 0.2738579        total: 3.18s    remaining: 12.7s
20:     learn: 0.2722430        total: 3.32s    remaining: 12.5s
21:     learn: 0.2705826        total: 3.45s    remaining: 12.2s
22:     learn: 0.2688878        total: 3.6s     remaining: 12s
23:     learn: 0.2674140        total: 3.72s    remaining: 11.8s
24:     learn: 0.2659134        total: 3.86s    remaining: 11.6s
25:     learn: 0.2644677        total: 3.98s    remaining: 11.3s
26:     learn: 0.2629573        total: 4.13s    remaining: 11.2s
27:     learn: 0.2613876        total: 4.25s    remaining: 10.9s
28:     learn: 0.2602688        total: 4.38s    remaining: 10.7s
29:     learn: 0.2590294        total: 4.5s     remaining: 10.5s
30:     learn: 0.2577282        total: 4.64s    remaining: 10.3s
31:     learn: 0.2565837        total: 4.77s    remaining: 10.1s
32:     learn: 0.2553450        total: 4.91s    remaining: 9.96s
33:     learn: 0.2542720        total: 5.04s    remaining: 9.78s
34:     learn: 0.2531253        total: 5.18s    remaining: 9.62s
35:     learn: 0.2518905        total: 5.31s    remaining: 9.44s
36:     learn: 0.2507193        total: 5.46s    remaining: 9.3s
37:     learn: 0.2495448        total: 5.59s    remaining: 9.12s
38:     learn: 0.2484476        total: 5.73s    remaining: 8.96s
39:     learn: 0.2474879        total: 5.89s    remaining: 8.84s
40:     learn: 0.2464846        total: 6.07s    remaining: 8.73s
41:     learn: 0.2456376        total: 6.22s    remaining: 8.59s
42:     learn: 0.2446581        total: 6.39s    remaining: 8.47s
43:     learn: 0.2436670        total: 6.54s    remaining: 8.33s
44:     learn: 0.2427970        total: 6.72s    remaining: 8.21s
45:     learn: 0.2419615        total: 6.86s    remaining: 8.05s
46:     learn: 0.2410798        total: 7.02s    remaining: 7.91s
47:     learn: 0.2402033        total: 7.14s    remaining: 7.73s
48:     learn: 0.2394002        total: 7.28s    remaining: 7.57s
49:     learn: 0.2385762        total: 7.4s     remaining: 7.4s
50:     learn: 0.2377679        total: 7.53s    remaining: 7.24s
51:     learn: 0.2369737        total: 7.65s    remaining: 7.06s
52:     learn: 0.2361693        total: 7.79s    remaining: 6.91s
53:     learn: 0.2355440        total: 7.91s    remaining: 6.73s
54:     learn: 0.2349009        total: 8.05s    remaining: 6.58s
55:     learn: 0.2341407        total: 8.17s    remaining: 6.42s
56:     learn: 0.2334434        total: 8.3s     remaining: 6.26s
57:     learn: 0.2326556        total: 8.43s    remaining: 6.1s
```

```
58:     learn: 0.2319460        total: 8.56s    remaining: 5.95s
59:     learn: 0.2313473        total: 8.68s    remaining: 5.79s
60:     learn: 0.2307048        total: 8.82s    remaining: 5.64s
61:     learn: 0.2300222        total: 8.94s    remaining: 5.48s
62:     learn: 0.2294036        total: 9.08s    remaining: 5.33s
63:     learn: 0.2286160        total: 9.22s    remaining: 5.19s
64:     learn: 0.2279639        total: 9.36s    remaining: 5.04s
65:     learn: 0.2272124        total: 9.5s     remaining: 4.89s
66:     learn: 0.2265350        total: 9.65s    remaining: 4.75s
67:     learn: 0.2257915        total: 9.79s    remaining: 4.61s
68:     learn: 0.2251167        total: 9.94s    remaining: 4.47s
69:     learn: 0.2244312        total: 10.1s    remaining: 4.32s
70:     learn: 0.2238277        total: 10.2s    remaining: 4.18s
71:     learn: 0.2232930        total: 10.4s    remaining: 4.03s
72:     learn: 0.2226134        total: 10.5s    remaining: 3.88s
73:     learn: 0.2219886        total: 10.6s    remaining: 3.74s
74:     learn: 0.2212872        total: 10.8s    remaining: 3.59s
75:     learn: 0.2208617        total: 10.9s    remaining: 3.44s
76:     learn: 0.2203368        total: 11s      remaining: 3.29s
77:     learn: 0.2197683        total: 11.2s    remaining: 3.15s
78:     learn: 0.2192601        total: 11.3s    remaining: 3s
79:     learn: 0.2187690        total: 11.4s    remaining: 2.86s
80:     learn: 0.2182088        total: 11.6s    remaining: 2.72s
81:     learn: 0.2177495        total: 11.7s    remaining: 2.57s
82:     learn: 0.2172470        total: 11.8s    remaining: 2.43s
83:     learn: 0.2167271        total: 12s      remaining: 2.28s
84:     learn: 0.2162661        total: 12.1s    remaining: 2.14s
85:     learn: 0.2158132        total: 12.3s    remaining: 1.99s
86:     learn: 0.2153383        total: 12.4s    remaining: 1.85s
87:     learn: 0.2148406        total: 12.5s    remaining: 1.71s
88:     learn: 0.2143740        total: 12.7s    remaining: 1.56s
89:     learn: 0.2138810        total: 12.8s    remaining: 1.42s
90:     learn: 0.2134074        total: 12.9s    remaining: 1.28s
91:     learn: 0.2129286        total: 13.1s    remaining: 1.14s
92:     learn: 0.2125038        total: 13.2s    remaining: 995ms
93:     learn: 0.2119318        total: 13.3s    remaining: 852ms
94:     learn: 0.2115180        total: 13.5s    remaining: 709ms
95:     learn: 0.2109555        total: 13.6s    remaining: 567ms
96:     learn: 0.2105389        total: 13.7s    remaining: 425ms
97:     learn: 0.2100934        total: 13.9s    remaining: 283ms
98:     learn: 0.2096323        total: 14s      remaining: 142ms
99:     learn: 0.2093007        total: 14.1s    remaining: 0us
[CV]  learning_rate=0.2, l2_leaf_reg=5, iterations=100, depth=7, ctr_bor
der_count=20, border_count=100, score=0.871948197038151, total=  24.6s
[CV] learning_rate=0.2, l2_leaf_reg=5, iterations=100, depth=7, ctr_bord
er_count=20, border_count=100

[Parallel(n_jobs=1)]: Done   1 out of   1 | elapsed:   27.6s remaining:
0.0s
```

```
0:      learn: 0.5384644        total: 145ms    remaining: 14.4s
1:      learn: 0.4499502        total: 278ms    remaining: 13.6s
2:      learn: 0.3947480        total: 424ms    remaining: 13.7s
3:      learn: 0.3587550        total: 566ms    remaining: 13.6s
4:      learn: 0.3377864        total: 714ms    remaining: 13.6s
5:      learn: 0.3249560        total: 860ms    remaining: 13.5s
6:      learn: 0.3155049        total: 994ms    remaining: 13.2s
7:      learn: 0.3084860        total: 1.11s    remaining: 12.8s
8:      learn: 0.3031588        total: 1.25s    remaining: 12.6s
9:      learn: 0.2988258        total: 1.36s    remaining: 12.3s
10:     learn: 0.2953773        total: 1.49s    remaining: 12s
11:     learn: 0.2921087        total: 1.6s     remaining: 11.7s
12:     learn: 0.2890483        total: 1.73s    remaining: 11.6s
13:     learn: 0.2865566        total: 1.86s    remaining: 11.4s
14:     learn: 0.2842340        total: 1.98s    remaining: 11.2s
15:     learn: 0.2818787        total: 2.1s     remaining: 11s
16:     learn: 0.2797036        total: 2.23s    remaining: 10.9s
17:     learn: 0.2776971        total: 2.36s    remaining: 10.7s
18:     learn: 0.2756631        total: 2.49s    remaining: 10.6s
19:     learn: 0.2735499        total: 2.61s    remaining: 10.4s
20:     learn: 0.2717986        total: 2.74s    remaining: 10.3s
21:     learn: 0.2699538        total: 2.86s    remaining: 10.1s
22:     learn: 0.2685881        total: 2.99s    remaining: 10s
23:     learn: 0.2670374        total: 3.1s     remaining: 9.82s
24:     learn: 0.2655042        total: 3.24s    remaining: 9.72s
25:     learn: 0.2640579        total: 3.37s    remaining: 9.59s
26:     learn: 0.2626816        total: 3.49s    remaining: 9.44s
27:     learn: 0.2613989        total: 3.63s    remaining: 9.33s
28:     learn: 0.2601643        total: 3.75s    remaining: 9.19s
29:     learn: 0.2587175        total: 3.88s    remaining: 9.06s
30:     learn: 0.2575291        total: 4.03s    remaining: 8.96s
31:     learn: 0.2563156        total: 4.15s    remaining: 8.82s
32:     learn: 0.2551909        total: 4.28s    remaining: 8.68s
33:     learn: 0.2539092        total: 4.41s    remaining: 8.56s
34:     learn: 0.2526994        total: 4.53s    remaining: 8.42s
35:     learn: 0.2514082        total: 4.66s    remaining: 8.28s
36:     learn: 0.2503732        total: 4.78s    remaining: 8.14s
37:     learn: 0.2494231        total: 4.91s    remaining: 8.01s
38:     learn: 0.2484540        total: 5.03s    remaining: 7.86s
39:     learn: 0.2474041        total: 5.16s    remaining: 7.74s
40:     learn: 0.2463958        total: 5.29s    remaining: 7.61s
41:     learn: 0.2453580        total: 5.43s    remaining: 7.5s
42:     learn: 0.2444509        total: 5.56s    remaining: 7.37s
43:     learn: 0.2434245        total: 5.69s    remaining: 7.24s
44:     learn: 0.2424634        total: 5.82s    remaining: 7.11s
45:     learn: 0.2415850        total: 5.96s    remaining: 6.99s
46:     learn: 0.2405643        total: 6.09s    remaining: 6.87s
47:     learn: 0.2396486        total: 6.23s    remaining: 6.75s
48:     learn: 0.2388896        total: 6.36s    remaining: 6.62s
49:     learn: 0.2381297        total: 6.48s    remaining: 6.48s
50:     learn: 0.2372458        total: 6.61s    remaining: 6.35s
51:     learn: 0.2363969        total: 6.74s    remaining: 6.22s
52:     learn: 0.2356366        total: 6.88s    remaining: 6.1s
53:     learn: 0.2348256        total: 7.01s    remaining: 5.97s
54:     learn: 0.2340818        total: 7.14s    remaining: 5.84s
55:     learn: 0.2333138        total: 7.27s    remaining: 5.71s
56:     learn: 0.2325828        total: 7.4s     remaining: 5.58s
57:     learn: 0.2318367        total: 7.53s    remaining: 5.45s
```

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58:     learn: 0.2312109        total: 7.66s    remaining: 5.32s
59:     learn: 0.2305735        total: 7.79s    remaining: 5.19s
60:     learn: 0.2299448        total: 7.92s    remaining: 5.06s
61:     learn: 0.2291448        total: 8.06s    remaining: 4.94s
62:     learn: 0.2283867        total: 8.2s     remaining: 4.81s
63:     learn: 0.2276479        total: 8.33s    remaining: 4.69s
64:     learn: 0.2270192        total: 8.45s    remaining: 4.55s
65:     learn: 0.2263027        total: 8.57s    remaining: 4.42s
66:     learn: 0.2257029        total: 8.7s     remaining: 4.29s
67:     learn: 0.2251084        total: 8.83s    remaining: 4.15s
68:     learn: 0.2244910        total: 8.96s    remaining: 4.03s
69:     learn: 0.2238849        total: 9.08s    remaining: 3.89s
70:     learn: 0.2232614        total: 9.21s    remaining: 3.76s
71:     learn: 0.2225548        total: 9.34s    remaining: 3.63s
72:     learn: 0.2218760        total: 9.47s    remaining: 3.5s
73:     learn: 0.2212739        total: 9.6s     remaining: 3.37s
74:     learn: 0.2207304        total: 9.73s    remaining: 3.24s
75:     learn: 0.2201937        total: 9.85s    remaining: 3.11s
76:     learn: 0.2196541        total: 9.98s    remaining: 2.98s
77:     learn: 0.2191427        total: 10.1s    remaining: 2.85s
78:     learn: 0.2185960        total: 10.2s    remaining: 2.72s
79:     learn: 0.2181483        total: 10.3s    remaining: 2.59s
80:     learn: 0.2176119        total: 10.5s    remaining: 2.46s
81:     learn: 0.2172116        total: 10.6s    remaining: 2.33s
82:     learn: 0.2166190        total: 10.7s    remaining: 2.2s
83:     learn: 0.2161214        total: 10.9s    remaining: 2.07s
84:     learn: 0.2155937        total: 11s      remaining: 1.94s
85:     learn: 0.2150214        total: 11.1s    remaining: 1.81s
86:     learn: 0.2144919        total: 11.3s    remaining: 1.68s
87:     learn: 0.2140351        total: 11.4s    remaining: 1.55s
88:     learn: 0.2135741        total: 11.5s    remaining: 1.42s
89:     learn: 0.2131098        total: 11.6s    remaining: 1.29s
90:     learn: 0.2125715        total: 11.8s    remaining: 1.17s
91:     learn: 0.2121098        total: 11.9s    remaining: 1.04s
92:     learn: 0.2116272        total: 12s      remaining: 906ms
93:     learn: 0.2111464        total: 12.2s    remaining: 777ms
94:     learn: 0.2106853        total: 12.3s    remaining: 648ms
95:     learn: 0.2102699        total: 12.4s    remaining: 518ms
96:     learn: 0.2097969        total: 12.6s    remaining: 389ms
97:     learn: 0.2093403        total: 12.7s    remaining: 259ms
98:     learn: 0.2089037        total: 12.8s    remaining: 130ms
99:     learn: 0.2084186        total: 13s      remaining: 0us
[CV]  learning_rate=0.2, l2_leaf_reg=5, iterations=100, depth=7, ctr_bor
der_count=20, border_count=100, score=0.8710908834946937, total=  20.0s
[CV] learning_rate=0.2, l2_leaf_reg=5, iterations=100, depth=7, ctr_bord
er_count=20, border_count=100

[Parallel(n_jobs=1)]: Done   2 out of   2 | elapsed:   50.7s remaining:
0.0s
```

```
0:      learn: 0.5402718        total: 157ms    remaining: 15.5s
1:      learn: 0.4512652        total: 287ms    remaining: 14.1s
2:      learn: 0.3954657        total: 437ms    remaining: 14.1s
3:      learn: 0.3614487        total: 600ms    remaining: 14.4s
4:      learn: 0.3403323        total: 731ms    remaining: 13.9s
5:      learn: 0.3265723        total: 874ms    remaining: 13.7s
6:      learn: 0.3162622        total: 1s       remaining: 13.3s
7:      learn: 0.3091823        total: 1.14s    remaining: 13.1s
8:      learn: 0.3040409        total: 1.25s    remaining: 12.7s
9:      learn: 0.2996697        total: 1.38s    remaining: 12.4s
10:     learn: 0.2961380        total: 1.5s     remaining: 12.2s
11:     learn: 0.2928209        total: 1.63s    remaining: 12s
12:     learn: 0.2900174        total: 1.75s    remaining: 11.7s
13:     learn: 0.2875695        total: 1.88s    remaining: 11.5s
14:     learn: 0.2853193        total: 2s       remaining: 11.3s
15:     learn: 0.2830746        total: 2.12s    remaining: 11.2s
16:     learn: 0.2810316        total: 2.25s    remaining: 11s
17:     learn: 0.2790973        total: 2.38s    remaining: 10.8s
18:     learn: 0.2770101        total: 2.52s    remaining: 10.7s
19:     learn: 0.2752850        total: 2.63s    remaining: 10.5s
20:     learn: 0.2733989        total: 2.76s    remaining: 10.4s
21:     learn: 0.2717798        total: 2.88s    remaining: 10.2s
22:     learn: 0.2701442        total: 3s       remaining: 10.1s
23:     learn: 0.2685390        total: 3.12s    remaining: 9.89s
24:     learn: 0.2667989        total: 3.25s    remaining: 9.77s
25:     learn: 0.2652612        total: 3.4s     remaining: 9.67s
26:     learn: 0.2639505        total: 3.54s    remaining: 9.58s
27:     learn: 0.2627724        total: 3.67s    remaining: 9.45s
28:     learn: 0.2613578        total: 3.81s    remaining: 9.34s
29:     learn: 0.2601420        total: 3.93s    remaining: 9.17s
30:     learn: 0.2588863        total: 4.06s    remaining: 9.03s
31:     learn: 0.2574970        total: 4.2s     remaining: 8.92s
32:     learn: 0.2563539        total: 4.33s    remaining: 8.79s
33:     learn: 0.2551378        total: 4.46s    remaining: 8.65s
34:     learn: 0.2540526        total: 4.58s    remaining: 8.51s
35:     learn: 0.2528380        total: 4.71s    remaining: 8.36s
36:     learn: 0.2517036        total: 4.84s    remaining: 8.25s
37:     learn: 0.2507705        total: 4.96s    remaining: 8.1s
38:     learn: 0.2496881        total: 5.09s    remaining: 7.96s
39:     learn: 0.2487324        total: 5.21s    remaining: 7.81s
40:     learn: 0.2477536        total: 5.34s    remaining: 7.69s
41:     learn: 0.2467338        total: 5.46s    remaining: 7.54s
42:     learn: 0.2458264        total: 5.6s     remaining: 7.42s
43:     learn: 0.2448182        total: 5.73s    remaining: 7.29s
44:     learn: 0.2438740        total: 5.87s    remaining: 7.17s
45:     learn: 0.2429948        total: 6s       remaining: 7.04s
46:     learn: 0.2422572        total: 6.17s    remaining: 6.96s
47:     learn: 0.2414016        total: 6.34s    remaining: 6.87s
48:     learn: 0.2405857        total: 6.52s    remaining: 6.79s
49:     learn: 0.2397888        total: 6.68s    remaining: 6.68s
50:     learn: 0.2389168        total: 6.84s    remaining: 6.57s
51:     learn: 0.2380359        total: 7s       remaining: 6.46s
52:     learn: 0.2373125        total: 7.14s    remaining: 6.33s
53:     learn: 0.2365884        total: 7.28s    remaining: 6.2s
54:     learn: 0.2357777        total: 7.41s    remaining: 6.06s
55:     learn: 0.2350156        total: 7.55s    remaining: 5.93s
56:     learn: 0.2343287        total: 7.67s    remaining: 5.79s
57:     learn: 0.2335547        total: 7.79s    remaining: 5.64s
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58:     learn: 0.2328528        total: 7.92s    remaining: 5.5s
59:     learn: 0.2320714        total: 8.05s    remaining: 5.37s
60:     learn: 0.2312848        total: 8.18s    remaining: 5.23s
61:     learn: 0.2304338        total: 8.38s    remaining: 5.13s
62:     learn: 0.2297740        total: 8.61s    remaining: 5.05s
63:     learn: 0.2290004        total: 8.81s    remaining: 4.96s
64:     learn: 0.2283137        total: 8.99s    remaining: 4.84s
65:     learn: 0.2277261        total: 9.14s    remaining: 4.71s
66:     learn: 0.2269307        total: 9.3s     remaining: 4.58s
67:     learn: 0.2262797        total: 9.42s    remaining: 4.43s
68:     learn: 0.2256765        total: 9.55s    remaining: 4.29s
69:     learn: 0.2249794        total: 9.69s    remaining: 4.15s
70:     learn: 0.2243451        total: 9.82s    remaining: 4.01s
71:     learn: 0.2237719        total: 9.95s    remaining: 3.87s
72:     learn: 0.2231718        total: 10.1s    remaining: 3.73s
73:     learn: 0.2225168        total: 10.2s    remaining: 3.59s
74:     learn: 0.2219212        total: 10.3s    remaining: 3.45s
75:     learn: 0.2214172        total: 10.5s    remaining: 3.32s
76:     learn: 0.2208735        total: 10.7s    remaining: 3.19s
77:     learn: 0.2203283        total: 10.8s    remaining: 3.05s
78:     learn: 0.2197816        total: 11s      remaining: 2.91s
79:     learn: 0.2192344        total: 11.1s    remaining: 2.77s
80:     learn: 0.2187059        total: 11.2s    remaining: 2.63s
81:     learn: 0.2182207        total: 11.4s    remaining: 2.49s
82:     learn: 0.2176895        total: 11.5s    remaining: 2.35s
83:     learn: 0.2171037        total: 11.6s    remaining: 2.22s
84:     learn: 0.2165787        total: 11.9s    remaining: 2.1s
85:     learn: 0.2160422        total: 12.2s    remaining: 1.98s
86:     learn: 0.2155228        total: 12.4s    remaining: 1.85s
87:     learn: 0.2149124        total: 12.6s    remaining: 1.72s
88:     learn: 0.2144471        total: 12.8s    remaining: 1.58s
89:     learn: 0.2138603        total: 13s      remaining: 1.44s
90:     learn: 0.2134447        total: 13.1s    remaining: 1.3s
91:     learn: 0.2129940        total: 13.3s    remaining: 1.16s
92:     learn: 0.2125769        total: 13.5s    remaining: 1.02s
93:     learn: 0.2121177        total: 13.7s    remaining: 873ms
94:     learn: 0.2117307        total: 13.8s    remaining: 728ms
95:     learn: 0.2112279        total: 14s      remaining: 583ms
96:     learn: 0.2107622        total: 14.1s    remaining: 437ms
97:     learn: 0.2102221        total: 14.3s    remaining: 291ms
98:     learn: 0.2098451        total: 14.4s    remaining: 145ms
99:     learn: 0.2094572        total: 14.5s    remaining: 0us
[CV]  learning_rate=0.2, l2_leaf_reg=5, iterations=100, depth=7, ctr_bor
der_count=20, border_count=100, score=0.8787270697952091, total=  24.0s
[CV] learning_rate=0.3, l2_leaf_reg=3, iterations=250, depth=7, ctr_bord
er_count=10, border_count=50
0:      learn: 0.4793271        total: 127ms    remaining: 31.6s
1:      learn: 0.3860321        total: 269ms    remaining: 33.3s
2:      learn: 0.3430470        total: 390ms    remaining: 32.1s
3:      learn: 0.3203540        total: 492ms    remaining: 30.2s
4:      learn: 0.3079255        total: 634ms    remaining: 31.1s
5:      learn: 0.3001816        total: 740ms    remaining: 30.1s
6:      learn: 0.2940640        total: 860ms    remaining: 29.9s
7:      learn: 0.2889041        total: 966ms    remaining: 29.2s
8:      learn: 0.2852757        total: 1.07s    remaining: 28.6s
9:      learn: 0.2816791        total: 1.19s    remaining: 28.6s
10:     learn: 0.2790049        total: 1.3s     remaining: 28.2s
11:     learn: 0.2760071        total: 1.42s    remaining: 28.1s
12:     learn: 0.2731579        total: 1.52s    remaining: 27.8s
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13:     learn: 0.2705300        total: 1.64s    remaining: 27.7s
14:     learn: 0.2681482        total: 1.75s    remaining: 27.4s
15:     learn: 0.2660253        total: 1.86s    remaining: 27.3s
16:     learn: 0.2637305        total: 1.99s    remaining: 27.3s
17:     learn: 0.2614165        total: 2.1s     remaining: 27.1s
18:     learn: 0.2594370        total: 2.23s    remaining: 27.1s
19:     learn: 0.2572781        total: 2.35s    remaining: 27s
20:     learn: 0.2554010        total: 2.48s    remaining: 27s
21:     learn: 0.2537080        total: 2.59s    remaining: 26.9s
22:     learn: 0.2522154        total: 2.71s    remaining: 26.8s
23:     learn: 0.2507304        total: 2.81s    remaining: 26.5s
24:     learn: 0.2493250        total: 2.92s    remaining: 26.3s
25:     learn: 0.2476553        total: 3.06s    remaining: 26.3s
26:     learn: 0.2462043        total: 3.18s    remaining: 26.3s
27:     learn: 0.2447267        total: 3.3s     remaining: 26.1s
28:     learn: 0.2430970        total: 3.42s    remaining: 26s
29:     learn: 0.2417827        total: 3.53s    remaining: 25.9s
30:     learn: 0.2403828        total: 3.66s    remaining: 25.9s
31:     learn: 0.2393013        total: 3.78s    remaining: 25.7s
32:     learn: 0.2380430        total: 3.91s    remaining: 25.7s
33:     learn: 0.2368174        total: 4.02s    remaining: 25.6s
34:     learn: 0.2355703        total: 4.15s    remaining: 25.5s
35:     learn: 0.2345431        total: 4.26s    remaining: 25.3s
36:     learn: 0.2336524        total: 4.37s    remaining: 25.2s
37:     learn: 0.2323451        total: 4.48s    remaining: 25s
38:     learn: 0.2312741        total: 4.59s    remaining: 24.8s
39:     learn: 0.2302570        total: 4.7s     remaining: 24.7s
40:     learn: 0.2292828        total: 4.83s    remaining: 24.6s
41:     learn: 0.2284306        total: 4.94s    remaining: 24.5s
42:     learn: 0.2274113        total: 5.06s    remaining: 24.4s
43:     learn: 0.2263520        total: 5.17s    remaining: 24.2s
44:     learn: 0.2252890        total: 5.3s     remaining: 24.2s
45:     learn: 0.2243367        total: 5.42s    remaining: 24s
46:     learn: 0.2234122        total: 5.54s    remaining: 23.9s
47:     learn: 0.2224840        total: 5.66s    remaining: 23.8s
48:     learn: 0.2214538        total: 5.78s    remaining: 23.7s
49:     learn: 0.2204886        total: 5.89s    remaining: 23.6s
50:     learn: 0.2195757        total: 6.02s    remaining: 23.5s
51:     learn: 0.2185903        total: 6.14s    remaining: 23.4s
52:     learn: 0.2177153        total: 6.27s    remaining: 23.3s
53:     learn: 0.2169295        total: 6.38s    remaining: 23.2s
54:     learn: 0.2161427        total: 6.51s    remaining: 23.1s
55:     learn: 0.2153890        total: 6.63s    remaining: 23s
56:     learn: 0.2145987        total: 6.75s    remaining: 22.9s
57:     learn: 0.2137197        total: 6.88s    remaining: 22.8s
58:     learn: 0.2129389        total: 7s       remaining: 22.7s
59:     learn: 0.2122173        total: 7.11s    remaining: 22.5s
60:     learn: 0.2115142        total: 7.24s    remaining: 22.4s
61:     learn: 0.2108533        total: 7.35s    remaining: 22.3s
62:     learn: 0.2101416        total: 7.48s    remaining: 22.2s
63:     learn: 0.2094934        total: 7.59s    remaining: 22.1s
64:     learn: 0.2088698        total: 7.72s    remaining: 22s
65:     learn: 0.2079729        total: 7.86s    remaining: 21.9s
66:     learn: 0.2074169        total: 7.98s    remaining: 21.8s
67:     learn: 0.2068162        total: 8.1s     remaining: 21.7s
68:     learn: 0.2062426        total: 8.22s    remaining: 21.6s
69:     learn: 0.2056014        total: 8.34s    remaining: 21.4s
70:     learn: 0.2049795        total: 8.46s    remaining: 21.3s
71:     learn: 0.2044010        total: 8.57s    remaining: 21.2s
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72:     learn: 0.2037338        total: 8.69s    remaining: 21.1s
73:     learn: 0.2031443        total: 8.82s    remaining: 21s
74:     learn: 0.2025271        total: 8.95s    remaining: 20.9s
75:     learn: 0.2019600        total: 9.05s    remaining: 20.7s
76:     learn: 0.2014236        total: 9.16s    remaining: 20.6s
77:     learn: 0.2008354        total: 9.26s    remaining: 20.4s
78:     learn: 0.2003001        total: 9.38s    remaining: 20.3s
79:     learn: 0.1995764        total: 9.52s    remaining: 20.2s
80:     learn: 0.1990315        total: 9.65s    remaining: 20.1s
81:     learn: 0.1984567        total: 9.78s    remaining: 20s
82:     learn: 0.1979590        total: 9.89s    remaining: 19.9s
83:     learn: 0.1974151        total: 10s      remaining: 19.8s
84:     learn: 0.1969147        total: 10.1s    remaining: 19.7s
85:     learn: 0.1963553        total: 10.3s    remaining: 19.6s
86:     learn: 0.1958119        total: 10.4s    remaining: 19.5s
87:     learn: 0.1952385        total: 10.5s    remaining: 19.3s
88:     learn: 0.1945757        total: 10.6s    remaining: 19.2s
89:     learn: 0.1940552        total: 10.8s    remaining: 19.1s
90:     learn: 0.1935536        total: 10.9s    remaining: 19s
91:     learn: 0.1929742        total: 11s      remaining: 18.9s
92:     learn: 0.1925228        total: 11.2s    remaining: 18.9s
93:     learn: 0.1919917        total: 11.3s    remaining: 18.8s
94:     learn: 0.1915375        total: 11.5s    remaining: 18.7s
95:     learn: 0.1910269        total: 11.6s    remaining: 18.7s
96:     learn: 0.1906019        total: 11.8s    remaining: 18.6s
97:     learn: 0.1901547        total: 11.9s    remaining: 18.5s
98:     learn: 0.1895903        total: 12.1s    remaining: 18.4s
99:     learn: 0.1891246        total: 12.2s    remaining: 18.3s
100:    learn: 0.1886706        total: 12.4s    remaining: 18.2s
101:    learn: 0.1881860        total: 12.5s    remaining: 18.1s
102:    learn: 0.1876649        total: 12.6s    remaining: 18s
103:    learn: 0.1874069        total: 12.7s    remaining: 17.8s
104:    learn: 0.1868750        total: 12.9s    remaining: 17.7s
105:    learn: 0.1864372        total: 13s      remaining: 17.6s
106:    learn: 0.1860190        total: 13.1s    remaining: 17.5s
107:    learn: 0.1856076        total: 13.2s    remaining: 17.4s
108:    learn: 0.1851981        total: 13.3s    remaining: 17.2s
109:    learn: 0.1847440        total: 13.4s    remaining: 17.1s
110:    learn: 0.1843762        total: 13.6s    remaining: 17s
111:    learn: 0.1839669        total: 13.7s    remaining: 16.8s
112:    learn: 0.1835369        total: 13.8s    remaining: 16.7s
113:    learn: 0.1830860        total: 13.9s    remaining: 16.6s
114:    learn: 0.1827125        total: 14.1s    remaining: 16.5s
115:    learn: 0.1823911        total: 14.2s    remaining: 16.3s
116:    learn: 0.1819031        total: 14.3s    remaining: 16.2s
117:    learn: 0.1815214        total: 14.4s    remaining: 16.1s
118:    learn: 0.1811474        total: 14.5s    remaining: 16s
119:    learn: 0.1806673        total: 14.6s    remaining: 15.9s
120:    learn: 0.1802427        total: 14.8s    remaining: 15.7s
121:    learn: 0.1799419        total: 14.9s    remaining: 15.6s
122:    learn: 0.1796314        total: 15s      remaining: 15.5s
123:    learn: 0.1793439        total: 15.1s    remaining: 15.3s
124:    learn: 0.1789626        total: 15.2s    remaining: 15.2s
125:    learn: 0.1784878        total: 15.3s    remaining: 15.1s
126:    learn: 0.1781515        total: 15.4s    remaining: 15s
127:    learn: 0.1777510        total: 15.6s    remaining: 14.8s
128:    learn: 0.1774036        total: 15.7s    remaining: 14.7s
129:    learn: 0.1769858        total: 15.8s    remaining: 14.6s
130:    learn: 0.1766936        total: 15.9s    remaining: 14.5s
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131:    learn: 0.1763330        total: 16.1s    remaining: 14.4s
132:    learn: 0.1759632        total: 16.2s    remaining: 14.2s
133:    learn: 0.1754600        total: 16.3s    remaining: 14.1s
134:    learn: 0.1749908        total: 16.4s    remaining: 14s
135:    learn: 0.1746530        total: 16.6s    remaining: 13.9s
136:    learn: 0.1742412        total: 16.7s    remaining: 13.7s
137:    learn: 0.1738305        total: 16.8s    remaining: 13.6s
138:    learn: 0.1734240        total: 16.9s    remaining: 13.5s
139:    learn: 0.1731240        total: 17s      remaining: 13.4s
140:    learn: 0.1727919        total: 17.2s    remaining: 13.3s
141:    learn: 0.1724129        total: 17.3s    remaining: 13.1s
142:    learn: 0.1720544        total: 17.4s    remaining: 13s
143:    learn: 0.1717615        total: 17.5s    remaining: 12.9s
144:    learn: 0.1713888        total: 17.6s    remaining: 12.8s
145:    learn: 0.1709778        total: 17.7s    remaining: 12.6s
146:    learn: 0.1706378        total: 17.9s    remaining: 12.5s
147:    learn: 0.1703460        total: 18s      remaining: 12.4s
148:    learn: 0.1700866        total: 18.1s    remaining: 12.3s
149:    learn: 0.1697763        total: 18.2s    remaining: 12.1s
150:    learn: 0.1694770        total: 18.3s    remaining: 12s
151:    learn: 0.1690867        total: 18.4s    remaining: 11.9s
152:    learn: 0.1688143        total: 18.5s    remaining: 11.8s
153:    learn: 0.1685595        total: 18.7s    remaining: 11.6s
154:    learn: 0.1681752        total: 18.8s    remaining: 11.5s
155:    learn: 0.1678506        total: 18.9s    remaining: 11.4s
156:    learn: 0.1675026        total: 19s      remaining: 11.3s
157:    learn: 0.1671923        total: 19.2s    remaining: 11.2s
158:    learn: 0.1668133        total: 19.3s    remaining: 11s
159:    learn: 0.1664912        total: 19.4s    remaining: 10.9s
160:    learn: 0.1660862        total: 19.5s    remaining: 10.8s
161:    learn: 0.1657395        total: 19.7s    remaining: 10.7s
162:    learn: 0.1654356        total: 19.8s    remaining: 10.5s
163:    learn: 0.1651067        total: 19.9s    remaining: 10.4s
164:    learn: 0.1648088        total: 20s      remaining: 10.3s
165:    learn: 0.1645177        total: 20.1s    remaining: 10.2s
166:    learn: 0.1641941        total: 20.2s    remaining: 10.1s
167:    learn: 0.1638331        total: 20.4s    remaining: 9.94s
168:    learn: 0.1634771        total: 20.5s    remaining: 9.82s
169:    learn: 0.1630707        total: 20.6s    remaining: 9.7s
170:    learn: 0.1627267        total: 20.7s    remaining: 9.58s
171:    learn: 0.1623671        total: 20.9s    remaining: 9.46s
172:    learn: 0.1621282        total: 21s      remaining: 9.34s
173:    learn: 0.1618496        total: 21.1s    remaining: 9.22s
174:    learn: 0.1615192        total: 21.2s    remaining: 9.09s
175:    learn: 0.1612742        total: 21.3s    remaining: 8.96s
176:    learn: 0.1610268        total: 21.4s    remaining: 8.85s
177:    learn: 0.1607056        total: 21.6s    remaining: 8.72s
178:    learn: 0.1604213        total: 21.7s    remaining: 8.6s
179:    learn: 0.1601122        total: 21.8s    remaining: 8.48s
180:    learn: 0.1597455        total: 21.9s    remaining: 8.37s
181:    learn: 0.1594364        total: 22.1s    remaining: 8.24s
182:    learn: 0.1590760        total: 22.2s    remaining: 8.12s
183:    learn: 0.1587690        total: 22.3s    remaining: 8s
184:    learn: 0.1585312        total: 22.4s    remaining: 7.88s
185:    learn: 0.1582487        total: 22.6s    remaining: 7.76s
186:    learn: 0.1579868        total: 22.7s    remaining: 7.64s
187:    learn: 0.1577371        total: 22.8s    remaining: 7.51s
188:    learn: 0.1574565        total: 22.9s    remaining: 7.39s
189:    learn: 0.1570736        total: 23s      remaining: 7.27s
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190:    learn: 0.1567421        total: 23.2s    remaining: 7.16s
191:    learn: 0.1565203        total: 23.3s    remaining: 7.03s
192:    learn: 0.1562004        total: 23.4s    remaining: 6.91s
193:    learn: 0.1559129        total: 23.5s    remaining: 6.79s
194:    learn: 0.1556143        total: 23.6s    remaining: 6.67s
195:    learn: 0.1552715        total: 23.8s    remaining: 6.54s
196:    learn: 0.1550199        total: 23.9s    remaining: 6.42s
197:    learn: 0.1547046        total: 24s      remaining: 6.3s
198:    learn: 0.1543972        total: 24.1s    remaining: 6.18s
199:    learn: 0.1540936        total: 24.2s    remaining: 6.06s
200:    learn: 0.1539078        total: 24.4s    remaining: 5.94s
201:    learn: 0.1537055        total: 24.5s    remaining: 5.82s
202:    learn: 0.1534257        total: 24.6s    remaining: 5.7s
203:    learn: 0.1531514        total: 24.7s    remaining: 5.57s
204:    learn: 0.1528660        total: 24.8s    remaining: 5.45s
205:    learn: 0.1526252        total: 24.9s    remaining: 5.33s
206:    learn: 0.1523292        total: 25.1s    remaining: 5.2s
207:    learn: 0.1520265        total: 25.2s    remaining: 5.08s
208:    learn: 0.1517686        total: 25.3s    remaining: 4.96s
209:    learn: 0.1514765        total: 25.4s    remaining: 4.84s
210:    learn: 0.1512366        total: 25.5s    remaining: 4.72s
211:    learn: 0.1509699        total: 25.7s    remaining: 4.6s
212:    learn: 0.1507036        total: 25.8s    remaining: 4.48s
213:    learn: 0.1504819        total: 25.9s    remaining: 4.35s
214:    learn: 0.1502431        total: 26s      remaining: 4.23s
215:    learn: 0.1499463        total: 26.1s    remaining: 4.11s
216:    learn: 0.1496398        total: 26.2s    remaining: 3.99s
217:    learn: 0.1494483        total: 26.3s    remaining: 3.87s
218:    learn: 0.1492158        total: 26.5s    remaining: 3.75s
219:    learn: 0.1489250        total: 26.6s    remaining: 3.62s
220:    learn: 0.1487094        total: 26.7s    remaining: 3.5s
221:    learn: 0.1484524        total: 26.8s    remaining: 3.38s
222:    learn: 0.1481972        total: 27s      remaining: 3.26s
223:    learn: 0.1479612        total: 27.1s    remaining: 3.14s
224:    learn: 0.1477793        total: 27.2s    remaining: 3.02s
225:    learn: 0.1475340        total: 27.4s    remaining: 2.91s
226:    learn: 0.1472280        total: 27.5s    remaining: 2.79s
227:    learn: 0.1470359        total: 27.7s    remaining: 2.67s
228:    learn: 0.1467388        total: 27.9s    remaining: 2.55s
229:    learn: 0.1465107        total: 28s      remaining: 2.43s
230:    learn: 0.1462978        total: 28.1s    remaining: 2.31s
231:    learn: 0.1460668        total: 28.3s    remaining: 2.19s
232:    learn: 0.1458759        total: 28.4s    remaining: 2.07s
233:    learn: 0.1455472        total: 28.5s    remaining: 1.95s
234:    learn: 0.1453970        total: 28.6s    remaining: 1.82s
235:    learn: 0.1451956        total: 28.7s    remaining: 1.7s
236:    learn: 0.1449452        total: 28.8s    remaining: 1.58s
237:    learn: 0.1445898        total: 29s      remaining: 1.46s
238:    learn: 0.1444252        total: 29.1s    remaining: 1.34s
239:    learn: 0.1442131        total: 29.2s    remaining: 1.22s
240:    learn: 0.1439433        total: 29.3s    remaining: 1.09s
241:    learn: 0.1437048        total: 29.4s    remaining: 972ms
242:    learn: 0.1434581        total: 29.5s    remaining: 851ms
243:    learn: 0.1432144        total: 29.6s    remaining: 729ms
244:    learn: 0.1429997        total: 29.8s    remaining: 607ms
245:    learn: 0.1427855        total: 29.9s    remaining: 486ms
246:    learn: 0.1424638        total: 30s      remaining: 364ms
247:    learn: 0.1422027        total: 30.1s    remaining: 243ms
248:    learn: 0.1419462        total: 30.3s    remaining: 121ms
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249:    learn: 0.1417308        total: 30.4s    remaining: 0us
[CV]  learning_rate=0.3, l2_leaf_reg=3, iterations=250, depth=7, ctr_bor
der_count=10, border_count=50, score=0.8822917669453597, total=  37.3s
[CV] learning_rate=0.3, l2_leaf_reg=3, iterations=250, depth=7, ctr_bord
er_count=10, border_count=50
0:      learn: 0.4794096        total: 128ms    remaining: 31.9s
1:      learn: 0.3834972        total: 270ms    remaining: 33.5s
2:      learn: 0.3422483        total: 400ms    remaining: 32.9s
3:      learn: 0.3191194        total: 501ms    remaining: 30.8s
4:      learn: 0.3072729        total: 638ms    remaining: 31.3s
5:      learn: 0.2999344        total: 749ms    remaining: 30.5s
6:      learn: 0.2941426        total: 861ms    remaining: 29.9s
7:      learn: 0.2900887        total: 971ms    remaining: 29.4s
8:      learn: 0.2858076        total: 1.08s    remaining: 28.9s
9:      learn: 0.2823812        total: 1.2s     remaining: 28.8s
10:     learn: 0.2795167        total: 1.31s    remaining: 28.5s
11:     learn: 0.2762814        total: 1.42s    remaining: 28.2s
12:     learn: 0.2733826        total: 1.54s    remaining: 28.1s
13:     learn: 0.2705370        total: 1.65s    remaining: 27.8s
14:     learn: 0.2678720        total: 1.77s    remaining: 27.8s
15:     learn: 0.2654032        total: 1.88s    remaining: 27.4s
16:     learn: 0.2633989        total: 1.99s    remaining: 27.3s
17:     learn: 0.2613734        total: 2.1s     remaining: 27.1s
18:     learn: 0.2591501        total: 2.23s    remaining: 27.1s
19:     learn: 0.2570855        total: 2.33s    remaining: 26.8s
20:     learn: 0.2550760        total: 2.45s    remaining: 26.7s
21:     learn: 0.2533591        total: 2.55s    remaining: 26.5s
22:     learn: 0.2516990        total: 2.66s    remaining: 26.3s
23:     learn: 0.2502864        total: 2.77s    remaining: 26.1s
24:     learn: 0.2487807        total: 2.88s    remaining: 25.9s
25:     learn: 0.2472802        total: 3.01s    remaining: 25.9s
26:     learn: 0.2458672        total: 3.14s    remaining: 25.9s
27:     learn: 0.2442801        total: 3.31s    remaining: 26.2s
28:     learn: 0.2430852        total: 3.44s    remaining: 26.2s
29:     learn: 0.2416924        total: 3.59s    remaining: 26.3s
30:     learn: 0.2402258        total: 3.75s    remaining: 26.5s
31:     learn: 0.2389441        total: 3.9s     remaining: 26.5s
32:     learn: 0.2378335        total: 4.04s    remaining: 26.6s
33:     learn: 0.2367984        total: 4.16s    remaining: 26.4s
34:     learn: 0.2357326        total: 4.28s    remaining: 26.3s
35:     learn: 0.2345627        total: 4.39s    remaining: 26.1s
36:     learn: 0.2333840        total: 4.49s    remaining: 25.9s
37:     learn: 0.2321896        total: 4.62s    remaining: 25.8s
38:     learn: 0.2311001        total: 4.74s    remaining: 25.6s
39:     learn: 0.2301157        total: 4.85s    remaining: 25.5s
40:     learn: 0.2289621        total: 4.97s    remaining: 25.4s
41:     learn: 0.2280224        total: 5.08s    remaining: 25.2s
42:     learn: 0.2271150        total: 5.2s     remaining: 25s
43:     learn: 0.2260221        total: 5.31s    remaining: 24.9s
44:     learn: 0.2250600        total: 5.43s    remaining: 24.8s
45:     learn: 0.2241665        total: 5.54s    remaining: 24.5s
46:     learn: 0.2233924        total: 5.65s    remaining: 24.4s
47:     learn: 0.2222472        total: 5.78s    remaining: 24.3s
48:     learn: 0.2213777        total: 5.9s     remaining: 24.2s
49:     learn: 0.2204298        total: 6.02s    remaining: 24.1s
50:     learn: 0.2194416        total: 6.17s    remaining: 24.1s
51:     learn: 0.2187641        total: 6.31s    remaining: 24s
52:     learn: 0.2178700        total: 6.44s    remaining: 24s
53:     learn: 0.2170252        total: 6.6s     remaining: 24s
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54:     learn: 0.2162813        total: 6.73s    remaining: 23.9s
55:     learn: 0.2155588        total: 6.85s    remaining: 23.7s
56:     learn: 0.2148063        total: 6.96s    remaining: 23.6s
57:     learn: 0.2139950        total: 7.08s    remaining: 23.4s
58:     learn: 0.2131623        total: 7.19s    remaining: 23.3s
59:     learn: 0.2123317        total: 7.32s    remaining: 23.2s
60:     learn: 0.2116266        total: 7.46s    remaining: 23.1s
61:     learn: 0.2109480        total: 7.57s    remaining: 22.9s
62:     learn: 0.2102570        total: 7.68s    remaining: 22.8s
63:     learn: 0.2096558        total: 7.8s     remaining: 22.7s
64:     learn: 0.2090905        total: 7.93s    remaining: 22.6s
65:     learn: 0.2083725        total: 8.04s    remaining: 22.4s
66:     learn: 0.2077617        total: 8.16s    remaining: 22.3s
67:     learn: 0.2071626        total: 8.28s    remaining: 22.1s
68:     learn: 0.2065480        total: 8.42s    remaining: 22.1s
69:     learn: 0.2059047        total: 8.54s    remaining: 22s
70:     learn: 0.2052642        total: 8.67s    remaining: 21.9s
71:     learn: 0.2046398        total: 8.79s    remaining: 21.7s
72:     learn: 0.2040800        total: 8.91s    remaining: 21.6s
73:     learn: 0.2034599        total: 9.03s    remaining: 21.5s
74:     learn: 0.2029342        total: 9.16s    remaining: 21.4s
75:     learn: 0.2023547        total: 9.27s    remaining: 21.2s
76:     learn: 0.2017645        total: 9.4s     remaining: 21.1s
77:     learn: 0.2011139        total: 9.52s    remaining: 21s
78:     learn: 0.2005424        total: 9.65s    remaining: 20.9s
79:     learn: 0.2000568        total: 9.76s    remaining: 20.7s
80:     learn: 0.1995149        total: 9.88s    remaining: 20.6s
81:     learn: 0.1989939        total: 10s      remaining: 20.5s
82:     learn: 0.1984601        total: 10.1s    remaining: 20.4s
83:     learn: 0.1979591        total: 10.2s    remaining: 20.2s
84:     learn: 0.1973820        total: 10.4s    remaining: 20.1s
85:     learn: 0.1969057        total: 10.5s    remaining: 20s
86:     learn: 0.1964010        total: 10.6s    remaining: 19.9s
87:     learn: 0.1958965        total: 10.7s    remaining: 19.8s
88:     learn: 0.1952818        total: 10.9s    remaining: 19.6s
89:     learn: 0.1947734        total: 11s      remaining: 19.5s
90:     learn: 0.1942085        total: 11.1s    remaining: 19.4s
91:     learn: 0.1937514        total: 11.2s    remaining: 19.3s
92:     learn: 0.1932916        total: 11.3s    remaining: 19.1s
93:     learn: 0.1928673        total: 11.4s    remaining: 19s
94:     learn: 0.1924299        total: 11.6s    remaining: 18.9s
95:     learn: 0.1920389        total: 11.7s    remaining: 18.7s
96:     learn: 0.1915492        total: 11.8s    remaining: 18.6s
97:     learn: 0.1910382        total: 11.9s    remaining: 18.5s
98:     learn: 0.1905418        total: 12s      remaining: 18.4s
99:     learn: 0.1900486        total: 12.2s    remaining: 18.3s
100:    learn: 0.1896161        total: 12.3s    remaining: 18.2s
101:    learn: 0.1891128        total: 12.4s    remaining: 18s
102:    learn: 0.1886222        total: 12.5s    remaining: 17.9s
103:    learn: 0.1883311        total: 12.6s    remaining: 17.7s
104:    learn: 0.1878209        total: 12.8s    remaining: 17.6s
105:    learn: 0.1873445        total: 12.9s    remaining: 17.5s
106:    learn: 0.1869320        total: 13s      remaining: 17.4s
107:    learn: 0.1863830        total: 13.1s    remaining: 17.2s
108:    learn: 0.1859597        total: 13.2s    remaining: 17.1s
109:    learn: 0.1855418        total: 13.4s    remaining: 17s
110:    learn: 0.1851446        total: 13.5s    remaining: 16.9s
111:    learn: 0.1847929        total: 13.6s    remaining: 16.7s
112:    learn: 0.1842910        total: 13.7s    remaining: 16.6s
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113:    learn: 0.1838541        total: 13.8s    remaining: 16.5s
114:    learn: 0.1834872        total: 14s      remaining: 16.4s
115:    learn: 0.1830573        total: 14.1s    remaining: 16.3s
116:    learn: 0.1826762        total: 14.2s    remaining: 16.1s
117:    learn: 0.1822888        total: 14.3s    remaining: 16s
118:    learn: 0.1818699        total: 14.4s    remaining: 15.9s
119:    learn: 0.1814282        total: 14.6s    remaining: 15.8s
120:    learn: 0.1810572        total: 14.7s    remaining: 15.7s
121:    learn: 0.1807388        total: 14.8s    remaining: 15.5s
122:    learn: 0.1802768        total: 14.9s    remaining: 15.4s
123:    learn: 0.1798162        total: 15.1s    remaining: 15.3s
124:    learn: 0.1793637        total: 15.2s    remaining: 15.2s
125:    learn: 0.1789945        total: 15.3s    remaining: 15s
126:    learn: 0.1786740        total: 15.4s    remaining: 14.9s
127:    learn: 0.1783012        total: 15.5s    remaining: 14.8s
128:    learn: 0.1779321        total: 15.7s    remaining: 14.7s
129:    learn: 0.1775095        total: 15.8s    remaining: 14.6s
130:    learn: 0.1771491        total: 15.9s    remaining: 14.4s
131:    learn: 0.1767664        total: 16s      remaining: 14.3s
132:    learn: 0.1763903        total: 16.1s    remaining: 14.2s
133:    learn: 0.1760125        total: 16.3s    remaining: 14.1s
134:    learn: 0.1756370        total: 16.4s    remaining: 14s
135:    learn: 0.1752898        total: 16.5s    remaining: 13.8s
136:    learn: 0.1749515        total: 16.6s    remaining: 13.7s
137:    learn: 0.1745831        total: 16.7s    remaining: 13.6s
138:    learn: 0.1742498        total: 16.9s    remaining: 13.5s
139:    learn: 0.1738848        total: 17s      remaining: 13.3s
140:    learn: 0.1734281        total: 17.1s    remaining: 13.2s
141:    learn: 0.1730783        total: 17.3s    remaining: 13.1s
142:    learn: 0.1726589        total: 17.4s    remaining: 13s
143:    learn: 0.1722500        total: 17.5s    remaining: 12.9s
144:    learn: 0.1719029        total: 17.6s    remaining: 12.8s
145:    learn: 0.1715780        total: 17.7s    remaining: 12.6s
146:    learn: 0.1711451        total: 17.9s    remaining: 12.5s
147:    learn: 0.1708515        total: 18s      remaining: 12.4s
148:    learn: 0.1705898        total: 18.1s    remaining: 12.3s
149:    learn: 0.1702871        total: 18.2s    remaining: 12.2s
150:    learn: 0.1698804        total: 18.4s    remaining: 12s
151:    learn: 0.1695360        total: 18.5s    remaining: 11.9s
152:    learn: 0.1690633        total: 18.6s    remaining: 11.8s
153:    learn: 0.1686910        total: 18.8s    remaining: 11.7s
154:    learn: 0.1683196        total: 18.9s    remaining: 11.6s
155:    learn: 0.1680346        total: 19s      remaining: 11.5s
156:    learn: 0.1677277        total: 19.2s    remaining: 11.3s
157:    learn: 0.1673951        total: 19.3s    remaining: 11.2s
158:    learn: 0.1670827        total: 19.5s    remaining: 11.1s
159:    learn: 0.1667828        total: 19.6s    remaining: 11s
160:    learn: 0.1664655        total: 19.7s    remaining: 10.9s
161:    learn: 0.1660708        total: 19.9s    remaining: 10.8s
162:    learn: 0.1657858        total: 20s      remaining: 10.7s
163:    learn: 0.1655244        total: 20.2s    remaining: 10.6s
164:    learn: 0.1652462        total: 20.3s    remaining: 10.5s
165:    learn: 0.1648744        total: 20.4s    remaining: 10.3s
166:    learn: 0.1645816        total: 20.5s    remaining: 10.2s
167:    learn: 0.1642503        total: 20.6s    remaining: 10.1s
168:    learn: 0.1638873        total: 20.8s    remaining: 9.96s
169:    learn: 0.1635484        total: 20.9s    remaining: 9.83s
170:    learn: 0.1631805        total: 21s      remaining: 9.71s
171:    learn: 0.1629200        total: 21.1s    remaining: 9.58s
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172:    learn: 0.1625697        total: 21.3s    remaining: 9.46s
173:    learn: 0.1622802        total: 21.4s    remaining: 9.34s
174:    learn: 0.1619781        total: 21.5s    remaining: 9.21s
175:    learn: 0.1617126        total: 21.6s    remaining: 9.09s
176:    learn: 0.1615134        total: 21.7s    remaining: 8.96s
177:    learn: 0.1611489        total: 21.9s    remaining: 8.84s
178:    learn: 0.1608533        total: 22s      remaining: 8.72s
179:    learn: 0.1605339        total: 22.1s    remaining: 8.6s
180:    learn: 0.1602945        total: 22.2s    remaining: 8.47s
181:    learn: 0.1600009        total: 22.3s    remaining: 8.35s
182:    learn: 0.1597061        total: 22.5s    remaining: 8.23s
183:    learn: 0.1594141        total: 22.6s    remaining: 8.1s
184:    learn: 0.1590945        total: 22.7s    remaining: 7.98s
185:    learn: 0.1587837        total: 22.8s    remaining: 7.85s
186:    learn: 0.1584784        total: 23s      remaining: 7.73s
187:    learn: 0.1581526        total: 23.1s    remaining: 7.61s
188:    learn: 0.1578823        total: 23.2s    remaining: 7.49s
189:    learn: 0.1576040        total: 23.3s    remaining: 7.37s
190:    learn: 0.1572944        total: 23.4s    remaining: 7.24s
191:    learn: 0.1570230        total: 23.6s    remaining: 7.12s
192:    learn: 0.1567524        total: 23.7s    remaining: 6.99s
193:    learn: 0.1565510        total: 23.8s    remaining: 6.86s
194:    learn: 0.1563065        total: 23.9s    remaining: 6.74s
195:    learn: 0.1560284        total: 24s      remaining: 6.61s
196:    learn: 0.1557251        total: 24.1s    remaining: 6.49s
197:    learn: 0.1554399        total: 24.2s    remaining: 6.36s
198:    learn: 0.1552048        total: 24.3s    remaining: 6.24s
199:    learn: 0.1549867        total: 24.5s    remaining: 6.11s
200:    learn: 0.1547876        total: 24.6s    remaining: 5.99s
201:    learn: 0.1544875        total: 24.7s    remaining: 5.87s
202:    learn: 0.1542424        total: 24.8s    remaining: 5.75s
203:    learn: 0.1539589        total: 24.9s    remaining: 5.62s
204:    learn: 0.1537255        total: 25.1s    remaining: 5.5s
205:    learn: 0.1534549        total: 25.2s    remaining: 5.37s
206:    learn: 0.1531389        total: 25.3s    remaining: 5.25s
207:    learn: 0.1528889        total: 25.4s    remaining: 5.13s
208:    learn: 0.1526222        total: 25.5s    remaining: 5.01s
209:    learn: 0.1523866        total: 25.7s    remaining: 4.89s
210:    learn: 0.1521408        total: 25.8s    remaining: 4.76s
211:    learn: 0.1518157        total: 25.9s    remaining: 4.64s
212:    learn: 0.1516067        total: 26s      remaining: 4.52s
213:    learn: 0.1513626        total: 26.1s    remaining: 4.39s
214:    learn: 0.1510955        total: 26.2s    remaining: 4.27s
215:    learn: 0.1508432        total: 26.3s    remaining: 4.15s
216:    learn: 0.1506026        total: 26.5s    remaining: 4.03s
217:    learn: 0.1502988        total: 26.6s    remaining: 3.9s
218:    learn: 0.1500377        total: 26.7s    remaining: 3.78s
219:    learn: 0.1497799        total: 26.8s    remaining: 3.66s
220:    learn: 0.1494339        total: 26.9s    remaining: 3.54s
221:    learn: 0.1491282        total: 27.1s    remaining: 3.41s
222:    learn: 0.1488841        total: 27.2s    remaining: 3.29s
223:    learn: 0.1486359        total: 27.3s    remaining: 3.17s
224:    learn: 0.1483871        total: 27.4s    remaining: 3.05s
225:    learn: 0.1480897        total: 27.6s    remaining: 2.93s
226:    learn: 0.1479108        total: 27.7s    remaining: 2.8s
227:    learn: 0.1475930        total: 27.8s    remaining: 2.68s
228:    learn: 0.1472818        total: 27.9s    remaining: 2.56s
229:    learn: 0.1470690        total: 28s      remaining: 2.44s
230:    learn: 0.1467906        total: 28.2s    remaining: 2.32s
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231:    learn: 0.1465707        total: 28.3s    remaining: 2.19s
232:    learn: 0.1462737        total: 28.4s    remaining: 2.07s
233:    learn: 0.1459690        total: 28.5s    remaining: 1.95s
234:    learn: 0.1456747        total: 28.6s    remaining: 1.83s
235:    learn: 0.1454023        total: 28.8s    remaining: 1.71s
236:    learn: 0.1451303        total: 28.9s    remaining: 1.58s
237:    learn: 0.1448006        total: 29s      remaining: 1.46s
238:    learn: 0.1445253        total: 29.1s    remaining: 1.34s
239:    learn: 0.1442856        total: 29.3s    remaining: 1.22s
240:    learn: 0.1439882        total: 29.4s    remaining: 1.1s
241:    learn: 0.1436817        total: 29.5s    remaining: 975ms
242:    learn: 0.1434024        total: 29.6s    remaining: 854ms
243:    learn: 0.1431010        total: 29.8s    remaining: 732ms
244:    learn: 0.1428670        total: 29.9s    remaining: 610ms
245:    learn: 0.1426122        total: 30s      remaining: 488ms
246:    learn: 0.1424344        total: 30.1s    remaining: 366ms
247:    learn: 0.1421981        total: 30.2s    remaining: 244ms
248:    learn: 0.1420128        total: 30.3s    remaining: 122ms
249:    learn: 0.1417878        total: 30.5s    remaining: 0us
[CV]  learning_rate=0.3, l2_leaf_reg=3, iterations=250, depth=7, ctr_bor
der_count=10, border_count=50, score=0.8806119287260449, total=  37.2s
[CV] learning_rate=0.3, l2_leaf_reg=3, iterations=250, depth=7, ctr_bord
er_count=10, border_count=50
0:      learn: 0.4818642        total: 139ms    remaining: 34.5s
1:      learn: 0.3857383        total: 283ms    remaining: 35.1s
2:      learn: 0.3439459        total: 425ms    remaining: 35s
3:      learn: 0.3223187        total: 548ms    remaining: 33.7s
4:      learn: 0.3094659        total: 676ms    remaining: 33.1s
5:      learn: 0.3012723        total: 789ms    remaining: 32.1s
6:      learn: 0.2954380        total: 907ms    remaining: 31.5s
7:      learn: 0.2908129        total: 1.01s    remaining: 30.7s
8:      learn: 0.2872003        total: 1.14s    remaining: 30.4s
9:      learn: 0.2834948        total: 1.25s    remaining: 29.9s
10:     learn: 0.2804040        total: 1.36s    remaining: 29.7s
11:     learn: 0.2772059        total: 1.48s    remaining: 29.4s
12:     learn: 0.2744498        total: 1.6s     remaining: 29.1s
13:     learn: 0.2721365        total: 1.71s    remaining: 28.8s
14:     learn: 0.2692985        total: 1.83s    remaining: 28.7s
15:     learn: 0.2673438        total: 1.94s    remaining: 28.4s
16:     learn: 0.2650347        total: 2.06s    remaining: 28.3s
17:     learn: 0.2626386        total: 2.18s    remaining: 28.2s
18:     learn: 0.2605308        total: 2.31s    remaining: 28.1s
19:     learn: 0.2587354        total: 2.43s    remaining: 27.9s
20:     learn: 0.2568974        total: 2.54s    remaining: 27.7s
21:     learn: 0.2551640        total: 2.64s    remaining: 27.4s
22:     learn: 0.2534418        total: 2.77s    remaining: 27.3s
23:     learn: 0.2517593        total: 2.88s    remaining: 27.1s
24:     learn: 0.2501532        total: 3.01s    remaining: 27.1s
25:     learn: 0.2485730        total: 3.13s    remaining: 27s
26:     learn: 0.2469476        total: 3.25s    remaining: 26.8s
27:     learn: 0.2455186        total: 3.36s    remaining: 26.6s
28:     learn: 0.2440404        total: 3.49s    remaining: 26.6s
29:     learn: 0.2428187        total: 3.6s     remaining: 26.4s
30:     learn: 0.2416032        total: 3.72s    remaining: 26.3s
31:     learn: 0.2404274        total: 3.83s    remaining: 26.1s
32:     learn: 0.2394282        total: 3.95s    remaining: 26s
33:     learn: 0.2384059        total: 4.07s    remaining: 25.9s
34:     learn: 0.2372198        total: 4.2s     remaining: 25.8s
35:     learn: 0.2360169        total: 4.33s    remaining: 25.8s
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36:     learn: 0.2349772        total: 4.46s    remaining: 25.7s
37:     learn: 0.2336258        total: 4.58s    remaining: 25.6s
38:     learn: 0.2324447        total: 4.7s     remaining: 25.4s
39:     learn: 0.2312768        total: 4.82s    remaining: 25.3s
40:     learn: 0.2302140        total: 4.94s    remaining: 25.2s
41:     learn: 0.2290410        total: 5.13s    remaining: 25.4s
42:     learn: 0.2278703        total: 5.32s    remaining: 25.6s
43:     learn: 0.2268779        total: 5.52s    remaining: 25.8s
44:     learn: 0.2259098        total: 5.78s    remaining: 26.3s
45:     learn: 0.2249703        total: 6.01s    remaining: 26.7s
46:     learn: 0.2240354        total: 6.23s    remaining: 26.9s
47:     learn: 0.2231414        total: 6.42s    remaining: 27s
48:     learn: 0.2220808        total: 6.66s    remaining: 27.3s
49:     learn: 0.2211588        total: 6.85s    remaining: 27.4s
50:     learn: 0.2203810        total: 7.02s    remaining: 27.4s
51:     learn: 0.2195007        total: 7.19s    remaining: 27.4s
52:     learn: 0.2185680        total: 7.35s    remaining: 27.3s
53:     learn: 0.2178689        total: 7.49s    remaining: 27.2s
54:     learn: 0.2169853        total: 7.64s    remaining: 27.1s
55:     learn: 0.2162949        total: 7.82s    remaining: 27.1s
56:     learn: 0.2153838        total: 8.03s    remaining: 27.2s
57:     learn: 0.2145818        total: 8.2s     remaining: 27.1s
58:     learn: 0.2139118        total: 8.37s    remaining: 27.1s
59:     learn: 0.2132131        total: 8.53s    remaining: 27s
60:     learn: 0.2124710        total: 8.67s    remaining: 26.9s
61:     learn: 0.2118356        total: 8.84s    remaining: 26.8s
62:     learn: 0.2111670        total: 8.99s    remaining: 26.7s
63:     learn: 0.2105227        total: 9.11s    remaining: 26.5s
64:     learn: 0.2099035        total: 9.24s    remaining: 26.3s
65:     learn: 0.2093054        total: 9.38s    remaining: 26.2s
66:     learn: 0.2085588        total: 9.6s     remaining: 26.2s
67:     learn: 0.2079289        total: 9.81s    remaining: 26.3s
68:     learn: 0.2072587        total: 10s      remaining: 26.3s
69:     learn: 0.2068183        total: 10.3s    remaining: 26.4s
70:     learn: 0.2063148        total: 10.5s    remaining: 26.4s
71:     learn: 0.2056758        total: 10.7s    remaining: 26.5s
72:     learn: 0.2050433        total: 10.9s    remaining: 26.5s
73:     learn: 0.2044118        total: 11.1s    remaining: 26.4s
74:     learn: 0.2037818        total: 11.3s    remaining: 26.3s
75:     learn: 0.2031559        total: 11.4s    remaining: 26.2s
76:     learn: 0.2025160        total: 11.6s    remaining: 26.1s
77:     learn: 0.2019648        total: 11.8s    remaining: 25.9s
78:     learn: 0.2012953        total: 12s      remaining: 26s
79:     learn: 0.2008306        total: 12.2s    remaining: 26s
80:     learn: 0.2002807        total: 12.5s    remaining: 26s
81:     learn: 0.1997521        total: 12.6s    remaining: 25.9s
82:     learn: 0.1992277        total: 12.8s    remaining: 25.9s
83:     learn: 0.1986028        total: 13.1s    remaining: 25.9s
84:     learn: 0.1980767        total: 13.3s    remaining: 25.8s
85:     learn: 0.1976001        total: 13.5s    remaining: 25.7s
86:     learn: 0.1970025        total: 13.7s    remaining: 25.6s
87:     learn: 0.1965690        total: 13.9s    remaining: 25.5s
88:     learn: 0.1960987        total: 14.1s    remaining: 25.5s
89:     learn: 0.1955826        total: 14.3s    remaining: 25.3s
90:     learn: 0.1950338        total: 14.5s    remaining: 25.3s
91:     learn: 0.1945702        total: 14.7s    remaining: 25.2s
92:     learn: 0.1939642        total: 14.9s    remaining: 25.1s
93:     learn: 0.1934091        total: 15.1s    remaining: 25s
94:     learn: 0.1927690        total: 15.2s    remaining: 24.9s
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95:     learn: 0.1922314        total: 15.4s    remaining: 24.7s
96:     learn: 0.1916706        total: 15.6s    remaining: 24.6s
97:     learn: 0.1911485        total: 15.7s    remaining: 24.3s
98:     learn: 0.1905923        total: 15.8s    remaining: 24.1s
99:     learn: 0.1902002        total: 15.9s    remaining: 23.9s
100:    learn: 0.1896714        total: 16.1s    remaining: 23.7s
101:    learn: 0.1893062        total: 16.2s    remaining: 23.5s
102:    learn: 0.1887953        total: 16.3s    remaining: 23.3s
103:    learn: 0.1882709        total: 16.4s    remaining: 23.1s
104:    learn: 0.1877344        total: 16.6s    remaining: 22.9s
105:    learn: 0.1873458        total: 16.7s    remaining: 22.7s
106:    learn: 0.1869075        total: 16.8s    remaining: 22.5s
107:    learn: 0.1864685        total: 16.9s    remaining: 22.3s
108:    learn: 0.1859767        total: 17.1s    remaining: 22.1s
109:    learn: 0.1855766        total: 17.2s    remaining: 21.9s
110:    learn: 0.1852883        total: 17.4s    remaining: 21.7s
111:    learn: 0.1848041        total: 17.5s    remaining: 21.5s
112:    learn: 0.1844121        total: 17.6s    remaining: 21.3s
113:    learn: 0.1840464        total: 17.7s    remaining: 21.2s
114:    learn: 0.1836127        total: 17.9s    remaining: 21s
115:    learn: 0.1831258        total: 18s      remaining: 20.8s
116:    learn: 0.1827306        total: 18.1s    remaining: 20.6s
117:    learn: 0.1823603        total: 18.2s    remaining: 20.4s
118:    learn: 0.1820635        total: 18.3s    remaining: 20.2s
119:    learn: 0.1815529        total: 18.5s    remaining: 20s
120:    learn: 0.1811035        total: 18.6s    remaining: 19.8s
121:    learn: 0.1807490        total: 18.7s    remaining: 19.6s
122:    learn: 0.1803946        total: 18.8s    remaining: 19.4s
123:    learn: 0.1799739        total: 19s      remaining: 19.3s
124:    learn: 0.1795335        total: 19.1s    remaining: 19.1s
125:    learn: 0.1791358        total: 19.2s    remaining: 18.9s
126:    learn: 0.1787191        total: 19.4s    remaining: 18.7s
127:    learn: 0.1784466        total: 19.5s    remaining: 18.6s
128:    learn: 0.1780772        total: 19.6s    remaining: 18.4s
129:    learn: 0.1777234        total: 19.7s    remaining: 18.2s
130:    learn: 0.1773789        total: 19.8s    remaining: 18s
131:    learn: 0.1770324        total: 20s      remaining: 17.8s
132:    learn: 0.1766235        total: 20.1s    remaining: 17.7s
133:    learn: 0.1763045        total: 20.2s    remaining: 17.5s
134:    learn: 0.1759187        total: 20.4s    remaining: 17.4s
135:    learn: 0.1755834        total: 20.5s    remaining: 17.2s
136:    learn: 0.1751806        total: 20.6s    remaining: 17s
137:    learn: 0.1748826        total: 20.8s    remaining: 16.8s
138:    learn: 0.1744961        total: 20.9s    remaining: 16.7s
139:    learn: 0.1741987        total: 21.1s    remaining: 16.6s
140:    learn: 0.1738338        total: 21.2s    remaining: 16.4s
141:    learn: 0.1734568        total: 21.4s    remaining: 16.2s
142:    learn: 0.1730956        total: 21.5s    remaining: 16.1s
143:    learn: 0.1727153        total: 21.6s    remaining: 15.9s
144:    learn: 0.1723633        total: 21.7s    remaining: 15.7s
145:    learn: 0.1720346        total: 21.8s    remaining: 15.5s
146:    learn: 0.1716707        total: 21.9s    remaining: 15.4s
147:    learn: 0.1713986        total: 22s      remaining: 15.2s
148:    learn: 0.1711321        total: 22.2s    remaining: 15s
149:    learn: 0.1707071        total: 22.3s    remaining: 14.9s
150:    learn: 0.1704407        total: 22.4s    remaining: 14.7s
151:    learn: 0.1700532        total: 22.5s    remaining: 14.5s
152:    learn: 0.1695949        total: 22.7s    remaining: 14.4s
153:    learn: 0.1693059        total: 22.8s    remaining: 14.2s
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154:    learn: 0.1689538        total: 22.9s    remaining: 14.1s
155:    learn: 0.1685833        total: 23.1s    remaining: 13.9s
156:    learn: 0.1682683        total: 23.2s    remaining: 13.7s
157:    learn: 0.1679657        total: 23.3s    remaining: 13.6s
158:    learn: 0.1675940        total: 23.4s    remaining: 13.4s
159:    learn: 0.1673413        total: 23.6s    remaining: 13.3s
160:    learn: 0.1670575        total: 23.7s    remaining: 13.1s
161:    learn: 0.1668038        total: 23.8s    remaining: 12.9s
162:    learn: 0.1664643        total: 23.9s    remaining: 12.8s
163:    learn: 0.1660829        total: 24s      remaining: 12.6s
164:    learn: 0.1657423        total: 24.2s    remaining: 12.4s
165:    learn: 0.1653827        total: 24.3s    remaining: 12.3s
166:    learn: 0.1651107        total: 24.4s    remaining: 12.1s
167:    learn: 0.1648030        total: 24.5s    remaining: 12s
168:    learn: 0.1645217        total: 24.7s    remaining: 11.8s
169:    learn: 0.1641505        total: 24.8s    remaining: 11.7s
170:    learn: 0.1638729        total: 25s      remaining: 11.5s
171:    learn: 0.1635727        total: 25.2s    remaining: 11.4s
172:    learn: 0.1633530        total: 25.4s    remaining: 11.3s
173:    learn: 0.1631292        total: 25.7s    remaining: 11.2s
174:    learn: 0.1628667        total: 25.9s    remaining: 11.1s
175:    learn: 0.1624651        total: 26.1s    remaining: 11s
176:    learn: 0.1621288        total: 26.2s    remaining: 10.8s
177:    learn: 0.1618097        total: 26.4s    remaining: 10.7s
178:    learn: 0.1615287        total: 26.5s    remaining: 10.5s
179:    learn: 0.1612804        total: 26.7s    remaining: 10.4s
180:    learn: 0.1609949        total: 26.9s    remaining: 10.3s
181:    learn: 0.1607295        total: 27.1s    remaining: 10.1s
182:    learn: 0.1604186        total: 27.2s    remaining: 9.98s
183:    learn: 0.1601216        total: 27.4s    remaining: 9.82s
184:    learn: 0.1598329        total: 27.5s    remaining: 9.68s
185:    learn: 0.1596100        total: 27.7s    remaining: 9.52s
186:    learn: 0.1593396        total: 27.9s    remaining: 9.4s
187:    learn: 0.1590233        total: 28.2s    remaining: 9.29s
188:    learn: 0.1586929        total: 28.4s    remaining: 9.16s
189:    learn: 0.1583442        total: 28.6s    remaining: 9.03s
190:    learn: 0.1580411        total: 28.8s    remaining: 8.91s
191:    learn: 0.1577813        total: 29.1s    remaining: 8.78s
192:    learn: 0.1575318        total: 29.2s    remaining: 8.63s
193:    learn: 0.1571852        total: 29.4s    remaining: 8.49s
194:    learn: 0.1569395        total: 29.6s    remaining: 8.35s
195:    learn: 0.1566391        total: 29.8s    remaining: 8.21s
196:    learn: 0.1562831        total: 30s      remaining: 8.06s
197:    learn: 0.1559908        total: 30.2s    remaining: 7.93s
198:    learn: 0.1557700        total: 30.4s    remaining: 7.78s
199:    learn: 0.1555088        total: 30.5s    remaining: 7.63s
200:    learn: 0.1552811        total: 30.7s    remaining: 7.48s
201:    learn: 0.1550314        total: 30.9s    remaining: 7.33s
202:    learn: 0.1548002        total: 31.1s    remaining: 7.19s
203:    learn: 0.1545602        total: 31.2s    remaining: 7.04s
204:    learn: 0.1542724        total: 31.4s    remaining: 6.89s
205:    learn: 0.1539975        total: 31.5s    remaining: 6.74s
206:    learn: 0.1536984        total: 31.7s    remaining: 6.58s
207:    learn: 0.1534415        total: 31.9s    remaining: 6.43s
208:    learn: 0.1532622        total: 32s      remaining: 6.28s
209:    learn: 0.1530001        total: 32.2s    remaining: 6.13s
210:    learn: 0.1527430        total: 32.3s    remaining: 5.98s
211:    learn: 0.1524629        total: 32.5s    remaining: 5.83s
212:    learn: 0.1522087        total: 32.7s    remaining: 5.68s
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213:    learn: 0.1519532        total: 32.8s    remaining: 5.52s
214:    learn: 0.1516779        total: 32.9s    remaining: 5.36s
215:    learn: 0.1513834        total: 33.1s    remaining: 5.21s
216:    learn: 0.1511443        total: 33.2s    remaining: 5.05s
217:    learn: 0.1508502        total: 33.3s    remaining: 4.89s
218:    learn: 0.1506272        total: 33.5s    remaining: 4.74s
219:    learn: 0.1503258        total: 33.7s    remaining: 4.59s
220:    learn: 0.1500185        total: 33.9s    remaining: 4.45s
221:    learn: 0.1497201        total: 34s      remaining: 4.29s
222:    learn: 0.1494641        total: 34.2s    remaining: 4.13s
223:    learn: 0.1491491        total: 34.3s    remaining: 3.98s
224:    learn: 0.1488517        total: 34.5s    remaining: 3.83s
225:    learn: 0.1486611        total: 34.6s    remaining: 3.68s
226:    learn: 0.1484380        total: 34.8s    remaining: 3.52s
227:    learn: 0.1481781        total: 35s      remaining: 3.38s
228:    learn: 0.1479599        total: 35.2s    remaining: 3.22s
229:    learn: 0.1476913        total: 35.3s    remaining: 3.07s
230:    learn: 0.1474298        total: 35.5s    remaining: 2.92s
231:    learn: 0.1471402        total: 35.7s    remaining: 2.77s
232:    learn: 0.1469052        total: 35.8s    remaining: 2.61s
233:    learn: 0.1466726        total: 36s      remaining: 2.46s
234:    learn: 0.1463978        total: 36.2s    remaining: 2.31s
235:    learn: 0.1460845        total: 36.4s    remaining: 2.16s
236:    learn: 0.1457843        total: 36.5s    remaining: 2s
237:    learn: 0.1454830        total: 36.6s    remaining: 1.85s
238:    learn: 0.1451780        total: 36.7s    remaining: 1.69s
239:    learn: 0.1449288        total: 36.9s    remaining: 1.54s
240:    learn: 0.1446272        total: 37s      remaining: 1.38s
241:    learn: 0.1443470        total: 37.1s    remaining: 1.23s
242:    learn: 0.1441337        total: 37.2s    remaining: 1.07s
243:    learn: 0.1438779        total: 37.3s    remaining: 918ms
244:    learn: 0.1436193        total: 37.4s    remaining: 764ms
245:    learn: 0.1434433        total: 37.6s    remaining: 611ms
246:    learn: 0.1431680        total: 37.7s    remaining: 458ms
247:    learn: 0.1428731        total: 37.9s    remaining: 306ms
248:    learn: 0.1426389        total: 38s      remaining: 153ms
249:    learn: 0.1423758        total: 38.2s    remaining: 0us
[CV]  learning_rate=0.3, l2_leaf_reg=3, iterations=250, depth=7, ctr_bor
der_count=10, border_count=50, score=0.8846086510127892, total=  45.2s
[CV] learning_rate=0.03, l2_leaf_reg=3, iterations=1000, depth=8, ctr_bo
rder_count=200, border_count=50
0:      learn: 0.6667306        total: 156ms    remaining: 2m 36s
1:      learn: 0.6424199        total: 300ms    remaining: 2m 29s
2:      learn: 0.6193769        total: 465ms    remaining: 2m 34s
3:      learn: 0.5980522        total: 628ms    remaining: 2m 36s
4:      learn: 0.5785240        total: 788ms    remaining: 2m 36s
5:      learn: 0.5603077        total: 931ms    remaining: 2m 34s
6:      learn: 0.5430144        total: 1.09s    remaining: 2m 34s
7:      learn: 0.5269018        total: 1.23s    remaining: 2m 32s
8:      learn: 0.5121235        total: 1.38s    remaining: 2m 32s
9:      learn: 0.4986159        total: 1.55s    remaining: 2m 33s
10:     learn: 0.4855092        total: 1.72s    remaining: 2m 34s
11:     learn: 0.4734809        total: 1.87s    remaining: 2m 34s
12:     learn: 0.4626444        total: 2.04s    remaining: 2m 34s
13:     learn: 0.4523451        total: 2.2s     remaining: 2m 35s
14:     learn: 0.4427165        total: 2.38s    remaining: 2m 36s
15:     learn: 0.4332276        total: 2.61s    remaining: 2m 40s
16:     learn: 0.4246228        total: 2.78s    remaining: 2m 40s
17:     learn: 0.4169690        total: 2.96s    remaining: 2m 41s
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18:     learn: 0.4095039        total: 3.14s    remaining: 2m 42s
19:     learn: 0.4023699        total: 3.3s     remaining: 2m 41s
20:     learn: 0.3959352        total: 3.43s    remaining: 2m 40s
21:     learn: 0.3899208        total: 3.68s    remaining: 2m 43s
22:     learn: 0.3842590        total: 3.87s    remaining: 2m 44s
23:     learn: 0.3789763        total: 4.09s    remaining: 2m 46s
24:     learn: 0.3740878        total: 4.28s    remaining: 2m 46s
25:     learn: 0.3695122        total: 4.48s    remaining: 2m 47s
26:     learn: 0.3648848        total: 4.65s    remaining: 2m 47s
27:     learn: 0.3607508        total: 4.89s    remaining: 2m 49s
28:     learn: 0.3569897        total: 5.07s    remaining: 2m 49s
29:     learn: 0.3532148        total: 5.26s    remaining: 2m 50s
30:     learn: 0.3497934        total: 5.48s    remaining: 2m 51s
31:     learn: 0.3464817        total: 5.65s    remaining: 2m 50s
32:     learn: 0.3434248        total: 5.83s    remaining: 2m 50s
33:     learn: 0.3404067        total: 6s       remaining: 2m 50s
34:     learn: 0.3376873        total: 6.17s    remaining: 2m 50s
35:     learn: 0.3349855        total: 6.31s    remaining: 2m 49s
36:     learn: 0.3325201        total: 6.45s    remaining: 2m 47s
37:     learn: 0.3302887        total: 6.57s    remaining: 2m 46s
38:     learn: 0.3280856        total: 6.72s    remaining: 2m 45s
39:     learn: 0.3260090        total: 6.85s    remaining: 2m 44s
40:     learn: 0.3241448        total: 6.99s    remaining: 2m 43s
41:     learn: 0.3222736        total: 7.13s    remaining: 2m 42s
42:     learn: 0.3204608        total: 7.27s    remaining: 2m 41s
43:     learn: 0.3186924        total: 7.4s     remaining: 2m 40s
44:     learn: 0.3170844        total: 7.55s    remaining: 2m 40s
45:     learn: 0.3155090        total: 7.67s    remaining: 2m 39s
46:     learn: 0.3139750        total: 7.82s    remaining: 2m 38s
47:     learn: 0.3125624        total: 7.96s    remaining: 2m 37s
48:     learn: 0.3112356        total: 8.09s    remaining: 2m 37s
49:     learn: 0.3100327        total: 8.22s    remaining: 2m 36s
50:     learn: 0.3088861        total: 8.37s    remaining: 2m 35s
51:     learn: 0.3077006        total: 8.49s    remaining: 2m 34s
52:     learn: 0.3065225        total: 8.63s    remaining: 2m 34s
53:     learn: 0.3054613        total: 8.75s    remaining: 2m 33s
54:     learn: 0.3044924        total: 8.89s    remaining: 2m 32s
55:     learn: 0.3034299        total: 9.02s    remaining: 2m 32s
56:     learn: 0.3025012        total: 9.16s    remaining: 2m 31s
57:     learn: 0.3015571        total: 9.29s    remaining: 2m 30s
58:     learn: 0.3006641        total: 9.43s    remaining: 2m 30s
59:     learn: 0.2998427        total: 9.55s    remaining: 2m 29s
60:     learn: 0.2989875        total: 9.7s     remaining: 2m 29s
61:     learn: 0.2982066        total: 9.86s    remaining: 2m 29s
62:     learn: 0.2974776        total: 10s      remaining: 2m 29s
63:     learn: 0.2967370        total: 10.2s    remaining: 2m 29s
64:     learn: 0.2959924        total: 10.4s    remaining: 2m 29s
65:     learn: 0.2952941        total: 10.5s    remaining: 2m 29s
66:     learn: 0.2946472        total: 10.7s    remaining: 2m 28s
67:     learn: 0.2939084        total: 10.8s    remaining: 2m 28s
68:     learn: 0.2932560        total: 11s      remaining: 2m 28s
69:     learn: 0.2926508        total: 11.1s    remaining: 2m 27s
70:     learn: 0.2920297        total: 11.3s    remaining: 2m 27s
71:     learn: 0.2914123        total: 11.4s    remaining: 2m 26s
72:     learn: 0.2908525        total: 11.5s    remaining: 2m 26s
73:     learn: 0.2902907        total: 11.6s    remaining: 2m 25s
74:     learn: 0.2897226        total: 11.8s    remaining: 2m 25s
75:     learn: 0.2891532        total: 11.9s    remaining: 2m 24s
76:     learn: 0.2886222        total: 12s      remaining: 2m 24s
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77:     learn: 0.2880924        total: 12.2s    remaining: 2m 23s
78:     learn: 0.2875865        total: 12.3s    remaining: 2m 23s
79:     learn: 0.2870773        total: 12.5s    remaining: 2m 23s
80:     learn: 0.2865554        total: 12.6s    remaining: 2m 23s
81:     learn: 0.2860599        total: 12.7s    remaining: 2m 22s
82:     learn: 0.2855908        total: 12.9s    remaining: 2m 22s
83:     learn: 0.2851207        total: 13s      remaining: 2m 21s
84:     learn: 0.2846608        total: 13.1s    remaining: 2m 21s
85:     learn: 0.2842438        total: 13.3s    remaining: 2m 21s
86:     learn: 0.2837834        total: 13.4s    remaining: 2m 20s
87:     learn: 0.2833316        total: 13.5s    remaining: 2m 20s
88:     learn: 0.2829018        total: 13.7s    remaining: 2m 19s
89:     learn: 0.2824837        total: 13.8s    remaining: 2m 19s
90:     learn: 0.2820868        total: 13.9s    remaining: 2m 19s
91:     learn: 0.2816718        total: 14.1s    remaining: 2m 18s
92:     learn: 0.2812803        total: 14.2s    remaining: 2m 18s
93:     learn: 0.2808694        total: 14.3s    remaining: 2m 18s
94:     learn: 0.2804673        total: 14.5s    remaining: 2m 17s
95:     learn: 0.2800979        total: 14.6s    remaining: 2m 17s
96:     learn: 0.2797035        total: 14.7s    remaining: 2m 17s
97:     learn: 0.2792953        total: 14.9s    remaining: 2m 16s
98:     learn: 0.2789085        total: 15s      remaining: 2m 16s
99:     learn: 0.2785169        total: 15.1s    remaining: 2m 16s
100:    learn: 0.2781103        total: 15.3s    remaining: 2m 15s
101:    learn: 0.2777337        total: 15.4s    remaining: 2m 15s
102:    learn: 0.2773606        total: 15.5s    remaining: 2m 15s
103:    learn: 0.2770155        total: 15.7s    remaining: 2m 15s
104:    learn: 0.2766817        total: 15.8s    remaining: 2m 14s
105:    learn: 0.2763125        total: 15.9s    remaining: 2m 14s
106:    learn: 0.2759745        total: 16.1s    remaining: 2m 14s
107:    learn: 0.2756076        total: 16.2s    remaining: 2m 13s
108:    learn: 0.2752525        total: 16.3s    remaining: 2m 13s
109:    learn: 0.2749325        total: 16.5s    remaining: 2m 13s
110:    learn: 0.2746022        total: 16.6s    remaining: 2m 12s
111:    learn: 0.2742573        total: 16.7s    remaining: 2m 12s
112:    learn: 0.2739303        total: 16.9s    remaining: 2m 12s
113:    learn: 0.2736157        total: 17s      remaining: 2m 12s
114:    learn: 0.2732729        total: 17.1s    remaining: 2m 11s
115:    learn: 0.2729481        total: 17.2s    remaining: 2m 11s
116:    learn: 0.2726784        total: 17.4s    remaining: 2m 11s
117:    learn: 0.2723723        total: 17.5s    remaining: 2m 10s
118:    learn: 0.2720673        total: 17.6s    remaining: 2m 10s
119:    learn: 0.2717306        total: 17.8s    remaining: 2m 10s
120:    learn: 0.2714334        total: 17.9s    remaining: 2m 9s
121:    learn: 0.2711042        total: 18s      remaining: 2m 9s
122:    learn: 0.2708291        total: 18.1s    remaining: 2m 9s
123:    learn: 0.2705194        total: 18.3s    remaining: 2m 9s
124:    learn: 0.2702204        total: 18.4s    remaining: 2m 8s
125:    learn: 0.2699756        total: 18.5s    remaining: 2m 8s
126:    learn: 0.2696747        total: 18.7s    remaining: 2m 8s
127:    learn: 0.2694056        total: 18.8s    remaining: 2m 8s
128:    learn: 0.2691242        total: 18.9s    remaining: 2m 7s
129:    learn: 0.2688401        total: 19.1s    remaining: 2m 7s
130:    learn: 0.2685554        total: 19.2s    remaining: 2m 7s
131:    learn: 0.2682836        total: 19.3s    remaining: 2m 7s
132:    learn: 0.2679743        total: 19.5s    remaining: 2m 6s
133:    learn: 0.2676507        total: 19.6s    remaining: 2m 6s
134:    learn: 0.2673425        total: 19.7s    remaining: 2m 6s
135:    learn: 0.2670582        total: 19.8s    remaining: 2m 6s
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136:    learn: 0.2667540        total: 20s      remaining: 2m 5s
137:    learn: 0.2664817        total: 20.1s    remaining: 2m 5s
138:    learn: 0.2661980        total: 20.3s    remaining: 2m 5s
139:    learn: 0.2659148        total: 20.4s    remaining: 2m 5s
140:    learn: 0.2656662        total: 20.5s    remaining: 2m 5s
141:    learn: 0.2653868        total: 20.6s    remaining: 2m 4s
142:    learn: 0.2651085        total: 20.8s    remaining: 2m 4s
143:    learn: 0.2648499        total: 20.9s    remaining: 2m 4s
144:    learn: 0.2645801        total: 21.1s    remaining: 2m 4s
145:    learn: 0.2643120        total: 21.2s    remaining: 2m 3s
146:    learn: 0.2640752        total: 21.3s    remaining: 2m 3s
147:    learn: 0.2638623        total: 21.4s    remaining: 2m 3s
148:    learn: 0.2635976        total: 21.6s    remaining: 2m 3s
149:    learn: 0.2633481        total: 21.7s    remaining: 2m 3s
150:    learn: 0.2630695        total: 21.8s    remaining: 2m 2s
151:    learn: 0.2628007        total: 22s      remaining: 2m 2s
152:    learn: 0.2625319        total: 22.1s    remaining: 2m 2s
153:    learn: 0.2622754        total: 22.3s    remaining: 2m 2s
154:    learn: 0.2620242        total: 22.4s    remaining: 2m 2s
155:    learn: 0.2617999        total: 22.5s    remaining: 2m 1s
156:    learn: 0.2615399        total: 22.7s    remaining: 2m 1s
157:    learn: 0.2612896        total: 22.8s    remaining: 2m 1s
158:    learn: 0.2610457        total: 22.9s    remaining: 2m 1s
159:    learn: 0.2607931        total: 23.1s    remaining: 2m 1s
160:    learn: 0.2605180        total: 23.2s    remaining: 2m
161:    learn: 0.2602834        total: 23.3s    remaining: 2m
162:    learn: 0.2600614        total: 23.5s    remaining: 2m
163:    learn: 0.2597933        total: 23.6s    remaining: 2m
164:    learn: 0.2595617        total: 23.7s    remaining: 2m
165:    learn: 0.2592810        total: 23.9s    remaining: 1m 59s
166:    learn: 0.2590391        total: 24s      remaining: 1m 59s
167:    learn: 0.2587806        total: 24.1s    remaining: 1m 59s
168:    learn: 0.2585268        total: 24.3s    remaining: 1m 59s
169:    learn: 0.2582560        total: 24.4s    remaining: 1m 59s
170:    learn: 0.2579983        total: 24.6s    remaining: 1m 59s
171:    learn: 0.2577474        total: 24.7s    remaining: 1m 58s
172:    learn: 0.2575268        total: 24.8s    remaining: 1m 58s
173:    learn: 0.2572845        total: 25s      remaining: 1m 58s
174:    learn: 0.2570502        total: 25.1s    remaining: 1m 58s
175:    learn: 0.2568112        total: 25.3s    remaining: 1m 58s
176:    learn: 0.2565647        total: 25.4s    remaining: 1m 58s
177:    learn: 0.2563410        total: 25.5s    remaining: 1m 57s
178:    learn: 0.2561005        total: 25.7s    remaining: 1m 57s
179:    learn: 0.2558842        total: 25.9s    remaining: 1m 57s
180:    learn: 0.2556504        total: 26s      remaining: 1m 57s
181:    learn: 0.2554392        total: 26.2s    remaining: 1m 57s
182:    learn: 0.2552025        total: 26.4s    remaining: 1m 57s
183:    learn: 0.2549831        total: 26.5s    remaining: 1m 57s
184:    learn: 0.2547463        total: 26.7s    remaining: 1m 57s
185:    learn: 0.2545243        total: 26.8s    remaining: 1m 57s
186:    learn: 0.2543035        total: 27s      remaining: 1m 57s
187:    learn: 0.2540937        total: 27.1s    remaining: 1m 57s
188:    learn: 0.2538757        total: 27.3s    remaining: 1m 56s
189:    learn: 0.2536550        total: 27.4s    remaining: 1m 56s
190:    learn: 0.2534007        total: 27.5s    remaining: 1m 56s
191:    learn: 0.2531790        total: 27.7s    remaining: 1m 56s
192:    learn: 0.2529539        total: 27.8s    remaining: 1m 56s
193:    learn: 0.2527413        total: 27.9s    remaining: 1m 56s
194:    learn: 0.2525238        total: 28.1s    remaining: 1m 55s
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195:    learn: 0.2523179        total: 28.2s    remaining: 1m 55s
196:    learn: 0.2521157        total: 28.3s    remaining: 1m 55s
197:    learn: 0.2519241        total: 28.5s    remaining: 1m 55s
198:    learn: 0.2517055        total: 28.6s    remaining: 1m 55s
199:    learn: 0.2515075        total: 28.8s    remaining: 1m 55s
200:    learn: 0.2513020        total: 28.9s    remaining: 1m 54s
201:    learn: 0.2511023        total: 29s      remaining: 1m 54s
202:    learn: 0.2509040        total: 29.2s    remaining: 1m 54s
203:    learn: 0.2506869        total: 29.3s    remaining: 1m 54s
204:    learn: 0.2504750        total: 29.5s    remaining: 1m 54s
205:    learn: 0.2502795        total: 29.6s    remaining: 1m 54s
206:    learn: 0.2500882        total: 29.7s    remaining: 1m 53s
207:    learn: 0.2498842        total: 29.9s    remaining: 1m 53s
208:    learn: 0.2496925        total: 30s      remaining: 1m 53s
209:    learn: 0.2495007        total: 30.1s    remaining: 1m 53s
210:    learn: 0.2492999        total: 30.3s    remaining: 1m 53s
211:    learn: 0.2491112        total: 30.4s    remaining: 1m 52s
212:    learn: 0.2489266        total: 30.5s    remaining: 1m 52s
213:    learn: 0.2487374        total: 30.6s    remaining: 1m 52s
214:    learn: 0.2485575        total: 30.8s    remaining: 1m 52s
215:    learn: 0.2483638        total: 30.9s    remaining: 1m 52s
216:    learn: 0.2481574        total: 31.1s    remaining: 1m 52s
217:    learn: 0.2479617        total: 31.2s    remaining: 1m 51s
218:    learn: 0.2477929        total: 31.3s    remaining: 1m 51s
219:    learn: 0.2475936        total: 31.4s    remaining: 1m 51s
220:    learn: 0.2473969        total: 31.6s    remaining: 1m 51s
221:    learn: 0.2471888        total: 31.7s    remaining: 1m 51s
222:    learn: 0.2469996        total: 31.9s    remaining: 1m 50s
223:    learn: 0.2468165        total: 32s      remaining: 1m 50s
224:    learn: 0.2466529        total: 32.1s    remaining: 1m 50s
225:    learn: 0.2464591        total: 32.2s    remaining: 1m 50s
226:    learn: 0.2462724        total: 32.4s    remaining: 1m 50s
227:    learn: 0.2460543        total: 32.5s    remaining: 1m 50s
228:    learn: 0.2458656        total: 32.6s    remaining: 1m 49s
229:    learn: 0.2456853        total: 32.8s    remaining: 1m 49s
230:    learn: 0.2454964        total: 32.9s    remaining: 1m 49s
231:    learn: 0.2453275        total: 33s      remaining: 1m 49s
232:    learn: 0.2451382        total: 33.2s    remaining: 1m 49s
233:    learn: 0.2449636        total: 33.3s    remaining: 1m 49s
234:    learn: 0.2447841        total: 33.5s    remaining: 1m 48s
235:    learn: 0.2445995        total: 33.6s    remaining: 1m 48s
236:    learn: 0.2444199        total: 33.7s    remaining: 1m 48s
237:    learn: 0.2442386        total: 33.9s    remaining: 1m 48s
238:    learn: 0.2440622        total: 34s      remaining: 1m 48s
239:    learn: 0.2438748        total: 34.1s    remaining: 1m 48s
240:    learn: 0.2436918        total: 34.3s    remaining: 1m 47s
241:    learn: 0.2434992        total: 34.4s    remaining: 1m 47s
242:    learn: 0.2433163        total: 34.6s    remaining: 1m 47s
243:    learn: 0.2431102        total: 34.7s    remaining: 1m 47s
244:    learn: 0.2429369        total: 34.9s    remaining: 1m 47s
245:    learn: 0.2427700        total: 35s      remaining: 1m 47s
246:    learn: 0.2425810        total: 35.1s    remaining: 1m 47s
247:    learn: 0.2424124        total: 35.3s    remaining: 1m 46s
248:    learn: 0.2422546        total: 35.4s    remaining: 1m 46s
249:    learn: 0.2420800        total: 35.6s    remaining: 1m 46s
250:    learn: 0.2419250        total: 35.7s    remaining: 1m 46s
251:    learn: 0.2417446        total: 35.8s    remaining: 1m 46s
252:    learn: 0.2415886        total: 36s      remaining: 1m 46s
253:    learn: 0.2414248        total: 36.1s    remaining: 1m 46s
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254:    learn: 0.2412611        total: 36.3s    remaining: 1m 45s
255:    learn: 0.2411050        total: 36.4s    remaining: 1m 45s
256:    learn: 0.2409207        total: 36.5s    remaining: 1m 45s
257:    learn: 0.2407558        total: 36.7s    remaining: 1m 45s
258:    learn: 0.2405872        total: 36.8s    remaining: 1m 45s
259:    learn: 0.2404203        total: 37s      remaining: 1m 45s
260:    learn: 0.2402565        total: 37.1s    remaining: 1m 45s
261:    learn: 0.2400996        total: 37.3s    remaining: 1m 45s
262:    learn: 0.2399361        total: 37.5s    remaining: 1m 44s
263:    learn: 0.2397642        total: 37.6s    remaining: 1m 44s
264:    learn: 0.2396046        total: 37.8s    remaining: 1m 44s
265:    learn: 0.2394458        total: 37.9s    remaining: 1m 44s
266:    learn: 0.2392777        total: 38.1s    remaining: 1m 44s
267:    learn: 0.2391160        total: 38.2s    remaining: 1m 44s
268:    learn: 0.2389470        total: 38.3s    remaining: 1m 44s
269:    learn: 0.2387835        total: 38.5s    remaining: 1m 44s
270:    learn: 0.2386317        total: 38.6s    remaining: 1m 43s
271:    learn: 0.2384636        total: 38.8s    remaining: 1m 43s
272:    learn: 0.2383064        total: 38.9s    remaining: 1m 43s
273:    learn: 0.2381579        total: 39s      remaining: 1m 43s
274:    learn: 0.2380134        total: 39.2s    remaining: 1m 43s
275:    learn: 0.2378478        total: 39.3s    remaining: 1m 43s
276:    learn: 0.2376926        total: 39.5s    remaining: 1m 43s
277:    learn: 0.2375375        total: 39.6s    remaining: 1m 42s
278:    learn: 0.2373685        total: 39.8s    remaining: 1m 42s
279:    learn: 0.2372228        total: 39.9s    remaining: 1m 42s
280:    learn: 0.2370685        total: 40s      remaining: 1m 42s
281:    learn: 0.2369272        total: 40.2s    remaining: 1m 42s
282:    learn: 0.2367799        total: 40.3s    remaining: 1m 42s
283:    learn: 0.2366217        total: 40.5s    remaining: 1m 41s
284:    learn: 0.2364957        total: 40.6s    remaining: 1m 41s
285:    learn: 0.2363493        total: 40.7s    remaining: 1m 41s
286:    learn: 0.2361820        total: 40.9s    remaining: 1m 41s
287:    learn: 0.2360260        total: 41s      remaining: 1m 41s
288:    learn: 0.2358836        total: 41.2s    remaining: 1m 41s
289:    learn: 0.2357360        total: 41.3s    remaining: 1m 41s
290:    learn: 0.2355951        total: 41.4s    remaining: 1m 40s
291:    learn: 0.2354419        total: 41.6s    remaining: 1m 40s
292:    learn: 0.2353099        total: 41.7s    remaining: 1m 40s
293:    learn: 0.2351464        total: 41.9s    remaining: 1m 40s
294:    learn: 0.2350135        total: 42.1s    remaining: 1m 40s
295:    learn: 0.2348575        total: 42.3s    remaining: 1m 40s
296:    learn: 0.2347070        total: 42.4s    remaining: 1m 40s
297:    learn: 0.2345653        total: 42.6s    remaining: 1m 40s
298:    learn: 0.2344255        total: 42.8s    remaining: 1m 40s
299:    learn: 0.2342753        total: 42.9s    remaining: 1m 40s
300:    learn: 0.2341222        total: 43s      remaining: 1m 39s
301:    learn: 0.2339591        total: 43.2s    remaining: 1m 39s
302:    learn: 0.2338014        total: 43.4s    remaining: 1m 39s
303:    learn: 0.2336392        total: 43.5s    remaining: 1m 39s
304:    learn: 0.2334776        total: 43.6s    remaining: 1m 39s
305:    learn: 0.2333316        total: 43.8s    remaining: 1m 39s
306:    learn: 0.2331849        total: 43.9s    remaining: 1m 39s
307:    learn: 0.2330359        total: 44.1s    remaining: 1m 39s
308:    learn: 0.2328887        total: 44.2s    remaining: 1m 38s
309:    learn: 0.2327475        total: 44.4s    remaining: 1m 38s
310:    learn: 0.2325970        total: 44.5s    remaining: 1m 38s
311:    learn: 0.2324537        total: 44.6s    remaining: 1m 38s
312:    learn: 0.2322933        total: 44.8s    remaining: 1m 38s
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313:    learn: 0.2321410        total: 44.9s    remaining: 1m 38s
314:    learn: 0.2319988        total: 45.1s    remaining: 1m 37s
315:    learn: 0.2318362        total: 45.2s    remaining: 1m 37s
316:    learn: 0.2316945        total: 45.3s    remaining: 1m 37s
317:    learn: 0.2315389        total: 45.5s    remaining: 1m 37s
318:    learn: 0.2314000        total: 45.6s    remaining: 1m 37s
319:    learn: 0.2312232        total: 45.8s    remaining: 1m 37s
320:    learn: 0.2310670        total: 45.9s    remaining: 1m 37s
321:    learn: 0.2309291        total: 46.1s    remaining: 1m 36s
322:    learn: 0.2307850        total: 46.2s    remaining: 1m 36s
323:    learn: 0.2306339        total: 46.3s    remaining: 1m 36s
324:    learn: 0.2304858        total: 46.5s    remaining: 1m 36s
325:    learn: 0.2303465        total: 46.6s    remaining: 1m 36s
326:    learn: 0.2302039        total: 46.8s    remaining: 1m 36s
327:    learn: 0.2300588        total: 46.9s    remaining: 1m 36s
328:    learn: 0.2299235        total: 47s      remaining: 1m 35s
329:    learn: 0.2297789        total: 47.2s    remaining: 1m 35s
330:    learn: 0.2296418        total: 47.3s    remaining: 1m 35s
331:    learn: 0.2294960        total: 47.4s    remaining: 1m 35s
332:    learn: 0.2293725        total: 47.6s    remaining: 1m 35s
333:    learn: 0.2292430        total: 47.7s    remaining: 1m 35s
334:    learn: 0.2291006        total: 47.9s    remaining: 1m 34s
335:    learn: 0.2289587        total: 48s      remaining: 1m 34s
336:    learn: 0.2288109        total: 48.1s    remaining: 1m 34s
337:    learn: 0.2286749        total: 48.3s    remaining: 1m 34s
338:    learn: 0.2285355        total: 48.4s    remaining: 1m 34s
339:    learn: 0.2284124        total: 48.6s    remaining: 1m 34s
340:    learn: 0.2282768        total: 48.7s    remaining: 1m 34s
341:    learn: 0.2281460        total: 48.9s    remaining: 1m 33s
342:    learn: 0.2280000        total: 49s      remaining: 1m 33s
343:    learn: 0.2278690        total: 49.1s    remaining: 1m 33s
344:    learn: 0.2277148        total: 49.3s    remaining: 1m 33s
345:    learn: 0.2275660        total: 49.4s    remaining: 1m 33s
346:    learn: 0.2274332        total: 49.5s    remaining: 1m 33s
347:    learn: 0.2273023        total: 49.7s    remaining: 1m 33s
348:    learn: 0.2271678        total: 49.8s    remaining: 1m 32s
349:    learn: 0.2270177        total: 50s      remaining: 1m 32s
350:    learn: 0.2268936        total: 50.1s    remaining: 1m 32s
351:    learn: 0.2267458        total: 50.3s    remaining: 1m 32s
352:    learn: 0.2266122        total: 50.4s    remaining: 1m 32s
353:    learn: 0.2264522        total: 50.6s    remaining: 1m 32s
354:    learn: 0.2263232        total: 50.7s    remaining: 1m 32s
355:    learn: 0.2262020        total: 50.8s    remaining: 1m 31s
356:    learn: 0.2260815        total: 51s      remaining: 1m 31s
357:    learn: 0.2259429        total: 51.1s    remaining: 1m 31s
358:    learn: 0.2258206        total: 51.3s    remaining: 1m 31s
359:    learn: 0.2256960        total: 51.4s    remaining: 1m 31s
360:    learn: 0.2255822        total: 51.5s    remaining: 1m 31s
361:    learn: 0.2254570        total: 51.7s    remaining: 1m 31s
362:    learn: 0.2253377        total: 51.8s    remaining: 1m 30s
363:    learn: 0.2252141        total: 51.9s    remaining: 1m 30s
364:    learn: 0.2250821        total: 52.1s    remaining: 1m 30s
365:    learn: 0.2249616        total: 52.2s    remaining: 1m 30s
366:    learn: 0.2248400        total: 52.3s    remaining: 1m 30s
367:    learn: 0.2247150        total: 52.5s    remaining: 1m 30s
368:    learn: 0.2245914        total: 52.6s    remaining: 1m 29s
369:    learn: 0.2244636        total: 52.7s    remaining: 1m 29s
370:    learn: 0.2243331        total: 52.9s    remaining: 1m 29s
371:    learn: 0.2242157        total: 53s      remaining: 1m 29s
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372:    learn: 0.2240836        total: 53.1s    remaining: 1m 29s
373:    learn: 0.2239518        total: 53.3s    remaining: 1m 29s
374:    learn: 0.2238304        total: 53.4s    remaining: 1m 29s
375:    learn: 0.2236994        total: 53.6s    remaining: 1m 28s
376:    learn: 0.2235723        total: 53.7s    remaining: 1m 28s
377:    learn: 0.2234421        total: 53.8s    remaining: 1m 28s
378:    learn: 0.2233095        total: 54s      remaining: 1m 28s
379:    learn: 0.2231828        total: 54.1s    remaining: 1m 28s
380:    learn: 0.2230564        total: 54.3s    remaining: 1m 28s
381:    learn: 0.2229273        total: 54.4s    remaining: 1m 28s
382:    learn: 0.2227864        total: 54.6s    remaining: 1m 27s
383:    learn: 0.2226754        total: 54.7s    remaining: 1m 27s
384:    learn: 0.2225385        total: 54.8s    remaining: 1m 27s
385:    learn: 0.2224089        total: 55s      remaining: 1m 27s
386:    learn: 0.2222707        total: 55.1s    remaining: 1m 27s
387:    learn: 0.2221501        total: 55.2s    remaining: 1m 27s
388:    learn: 0.2220267        total: 55.4s    remaining: 1m 27s
389:    learn: 0.2219037        total: 55.5s    remaining: 1m 26s
390:    learn: 0.2217703        total: 55.7s    remaining: 1m 26s
391:    learn: 0.2216419        total: 55.8s    remaining: 1m 26s
392:    learn: 0.2215154        total: 55.9s    remaining: 1m 26s
393:    learn: 0.2213897        total: 56.1s    remaining: 1m 26s
394:    learn: 0.2212639        total: 56.2s    remaining: 1m 26s
395:    learn: 0.2211450        total: 56.3s    remaining: 1m 25s
396:    learn: 0.2210371        total: 56.5s    remaining: 1m 25s
397:    learn: 0.2209176        total: 56.6s    remaining: 1m 25s
398:    learn: 0.2207916        total: 56.7s    remaining: 1m 25s
399:    learn: 0.2206717        total: 56.9s    remaining: 1m 25s
400:    learn: 0.2205581        total: 57s      remaining: 1m 25s
401:    learn: 0.2204388        total: 57.1s    remaining: 1m 25s
402:    learn: 0.2203165        total: 57.3s    remaining: 1m 24s
403:    learn: 0.2201788        total: 57.4s    remaining: 1m 24s
404:    learn: 0.2200618        total: 57.6s    remaining: 1m 24s
405:    learn: 0.2199445        total: 57.7s    remaining: 1m 24s
406:    learn: 0.2198205        total: 57.9s    remaining: 1m 24s
407:    learn: 0.2197012        total: 58.1s    remaining: 1m 24s
408:    learn: 0.2195741        total: 58.3s    remaining: 1m 24s
409:    learn: 0.2194509        total: 58.4s    remaining: 1m 24s
410:    learn: 0.2193226        total: 58.6s    remaining: 1m 23s
411:    learn: 0.2192042        total: 58.8s    remaining: 1m 23s
412:    learn: 0.2190791        total: 58.9s    remaining: 1m 23s
413:    learn: 0.2189590        total: 59s      remaining: 1m 23s
414:    learn: 0.2188382        total: 59.2s    remaining: 1m 23s
415:    learn: 0.2187217        total: 59.3s    remaining: 1m 23s
416:    learn: 0.2186067        total: 59.5s    remaining: 1m 23s
417:    learn: 0.2184957        total: 59.6s    remaining: 1m 23s
418:    learn: 0.2183703        total: 59.8s    remaining: 1m 22s
419:    learn: 0.2182540        total: 59.9s    remaining: 1m 22s
420:    learn: 0.2181325        total: 1m       remaining: 1m 22s
421:    learn: 0.2180219        total: 1m       remaining: 1m 22s
422:    learn: 0.2179109        total: 1m       remaining: 1m 22s
423:    learn: 0.2177860        total: 1m       remaining: 1m 22s
424:    learn: 0.2176743        total: 1m       remaining: 1m 21s
425:    learn: 0.2175689        total: 1m       remaining: 1m 21s
426:    learn: 0.2174470        total: 1m       remaining: 1m 21s
427:    learn: 0.2173277        total: 1m       remaining: 1m 21s
428:    learn: 0.2172274        total: 1m 1s    remaining: 1m 21s
429:    learn: 0.2171239        total: 1m 1s    remaining: 1m 21s
430:    learn: 0.2170032        total: 1m 1s    remaining: 1m 21s
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431:    learn: 0.2168877        total: 1m 1s    remaining: 1m 20s
432:    learn: 0.2167859        total: 1m 1s    remaining: 1m 20s
433:    learn: 0.2166662        total: 1m 1s    remaining: 1m 20s
434:    learn: 0.2165412        total: 1m 1s    remaining: 1m 20s
435:    learn: 0.2164357        total: 1m 2s    remaining: 1m 20s
436:    learn: 0.2163178        total: 1m 2s    remaining: 1m 20s
437:    learn: 0.2162048        total: 1m 2s    remaining: 1m 19s
438:    learn: 0.2160942        total: 1m 2s    remaining: 1m 19s
439:    learn: 0.2159852        total: 1m 2s    remaining: 1m 19s
440:    learn: 0.2158881        total: 1m 2s    remaining: 1m 19s
441:    learn: 0.2157541        total: 1m 2s    remaining: 1m 19s
442:    learn: 0.2156489        total: 1m 3s    remaining: 1m 19s
443:    learn: 0.2155239        total: 1m 3s    remaining: 1m 19s
444:    learn: 0.2154157        total: 1m 3s    remaining: 1m 18s
445:    learn: 0.2153037        total: 1m 3s    remaining: 1m 18s
446:    learn: 0.2151773        total: 1m 3s    remaining: 1m 18s
447:    learn: 0.2150653        total: 1m 3s    remaining: 1m 18s
448:    learn: 0.2149553        total: 1m 3s    remaining: 1m 18s
449:    learn: 0.2148435        total: 1m 4s    remaining: 1m 18s
450:    learn: 0.2147372        total: 1m 4s    remaining: 1m 18s
451:    learn: 0.2146254        total: 1m 4s    remaining: 1m 17s
452:    learn: 0.2145290        total: 1m 4s    remaining: 1m 17s
453:    learn: 0.2144269        total: 1m 4s    remaining: 1m 17s
454:    learn: 0.2143009        total: 1m 4s    remaining: 1m 17s
455:    learn: 0.2141840        total: 1m 4s    remaining: 1m 17s
456:    learn: 0.2140729        total: 1m 4s    remaining: 1m 17s
457:    learn: 0.2139578        total: 1m 5s    remaining: 1m 17s
458:    learn: 0.2138448        total: 1m 5s    remaining: 1m 16s
459:    learn: 0.2137323        total: 1m 5s    remaining: 1m 16s
460:    learn: 0.2136280        total: 1m 5s    remaining: 1m 16s
461:    learn: 0.2135004        total: 1m 5s    remaining: 1m 16s
462:    learn: 0.2133932        total: 1m 5s    remaining: 1m 16s
463:    learn: 0.2132826        total: 1m 5s    remaining: 1m 16s
464:    learn: 0.2131690        total: 1m 6s    remaining: 1m 16s
465:    learn: 0.2130657        total: 1m 6s    remaining: 1m 15s
466:    learn: 0.2129470        total: 1m 6s    remaining: 1m 15s
467:    learn: 0.2128470        total: 1m 6s    remaining: 1m 15s
468:    learn: 0.2127344        total: 1m 6s    remaining: 1m 15s
469:    learn: 0.2126216        total: 1m 6s    remaining: 1m 15s
470:    learn: 0.2124960        total: 1m 6s    remaining: 1m 15s
471:    learn: 0.2123753        total: 1m 7s    remaining: 1m 15s
472:    learn: 0.2122657        total: 1m 7s    remaining: 1m 14s
473:    learn: 0.2121530        total: 1m 7s    remaining: 1m 14s
474:    learn: 0.2120348        total: 1m 7s    remaining: 1m 14s
475:    learn: 0.2119010        total: 1m 7s    remaining: 1m 14s
476:    learn: 0.2118019        total: 1m 7s    remaining: 1m 14s
477:    learn: 0.2116996        total: 1m 7s    remaining: 1m 14s
478:    learn: 0.2115762        total: 1m 8s    remaining: 1m 14s
479:    learn: 0.2114630        total: 1m 8s    remaining: 1m 13s
480:    learn: 0.2113705        total: 1m 8s    remaining: 1m 13s
481:    learn: 0.2112404        total: 1m 8s    remaining: 1m 13s
482:    learn: 0.2111072        total: 1m 8s    remaining: 1m 13s
483:    learn: 0.2109885        total: 1m 8s    remaining: 1m 13s
484:    learn: 0.2108783        total: 1m 8s    remaining: 1m 13s
485:    learn: 0.2107942        total: 1m 9s    remaining: 1m 13s
486:    learn: 0.2106753        total: 1m 9s    remaining: 1m 12s
487:    learn: 0.2105706        total: 1m 9s    remaining: 1m 12s
488:    learn: 0.2104581        total: 1m 9s    remaining: 1m 12s
489:    learn: 0.2103483        total: 1m 9s    remaining: 1m 12s
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490:    learn: 0.2102364        total: 1m 9s    remaining: 1m 12s
491:    learn: 0.2101302        total: 1m 9s    remaining: 1m 12s
492:    learn: 0.2100255        total: 1m 10s   remaining: 1m 12s
493:    learn: 0.2099307        total: 1m 10s   remaining: 1m 11s
494:    learn: 0.2098065        total: 1m 10s   remaining: 1m 11s
495:    learn: 0.2097111        total: 1m 10s   remaining: 1m 11s
496:    learn: 0.2096023        total: 1m 10s   remaining: 1m 11s
497:    learn: 0.2095105        total: 1m 10s   remaining: 1m 11s
498:    learn: 0.2094258        total: 1m 10s   remaining: 1m 11s
499:    learn: 0.2093233        total: 1m 10s   remaining: 1m 10s
500:    learn: 0.2092209        total: 1m 11s   remaining: 1m 10s
501:    learn: 0.2091015        total: 1m 11s   remaining: 1m 10s
502:    learn: 0.2090083        total: 1m 11s   remaining: 1m 10s
503:    learn: 0.2089121        total: 1m 11s   remaining: 1m 10s
504:    learn: 0.2088056        total: 1m 11s   remaining: 1m 10s
505:    learn: 0.2087143        total: 1m 11s   remaining: 1m 10s
506:    learn: 0.2086128        total: 1m 11s   remaining: 1m 9s
507:    learn: 0.2085066        total: 1m 12s   remaining: 1m 9s
508:    learn: 0.2084133        total: 1m 12s   remaining: 1m 9s
509:    learn: 0.2083017        total: 1m 12s   remaining: 1m 9s
510:    learn: 0.2082046        total: 1m 12s   remaining: 1m 9s
511:    learn: 0.2080958        total: 1m 12s   remaining: 1m 9s
512:    learn: 0.2079928        total: 1m 12s   remaining: 1m 9s
513:    learn: 0.2078963        total: 1m 12s   remaining: 1m 9s
514:    learn: 0.2077879        total: 1m 13s   remaining: 1m 8s
515:    learn: 0.2076830        total: 1m 13s   remaining: 1m 8s
516:    learn: 0.2075877        total: 1m 13s   remaining: 1m 8s
517:    learn: 0.2074757        total: 1m 13s   remaining: 1m 8s
518:    learn: 0.2073704        total: 1m 13s   remaining: 1m 8s
519:    learn: 0.2072943        total: 1m 13s   remaining: 1m 8s
520:    learn: 0.2071961        total: 1m 14s   remaining: 1m 8s
521:    learn: 0.2070930        total: 1m 14s   remaining: 1m 8s
522:    learn: 0.2070010        total: 1m 14s   remaining: 1m 7s
523:    learn: 0.2069072        total: 1m 14s   remaining: 1m 7s
524:    learn: 0.2068054        total: 1m 14s   remaining: 1m 7s
525:    learn: 0.2067091        total: 1m 14s   remaining: 1m 7s
526:    learn: 0.2065919        total: 1m 15s   remaining: 1m 7s
527:    learn: 0.2064980        total: 1m 15s   remaining: 1m 7s
528:    learn: 0.2063907        total: 1m 15s   remaining: 1m 7s
529:    learn: 0.2063038        total: 1m 15s   remaining: 1m 6s
530:    learn: 0.2062052        total: 1m 15s   remaining: 1m 6s
531:    learn: 0.2060960        total: 1m 15s   remaining: 1m 6s
532:    learn: 0.2060016        total: 1m 15s   remaining: 1m 6s
533:    learn: 0.2059090        total: 1m 16s   remaining: 1m 6s
534:    learn: 0.2058163        total: 1m 16s   remaining: 1m 6s
535:    learn: 0.2056986        total: 1m 16s   remaining: 1m 6s
536:    learn: 0.2056169        total: 1m 16s   remaining: 1m 5s
537:    learn: 0.2055230        total: 1m 16s   remaining: 1m 5s
538:    learn: 0.2054304        total: 1m 16s   remaining: 1m 5s
539:    learn: 0.2053477        total: 1m 16s   remaining: 1m 5s
540:    learn: 0.2052570        total: 1m 16s   remaining: 1m 5s
541:    learn: 0.2051530        total: 1m 17s   remaining: 1m 5s
542:    learn: 0.2050658        total: 1m 17s   remaining: 1m 4s
543:    learn: 0.2049618        total: 1m 17s   remaining: 1m 4s
544:    learn: 0.2048641        total: 1m 17s   remaining: 1m 4s
545:    learn: 0.2047548        total: 1m 17s   remaining: 1m 4s
546:    learn: 0.2046421        total: 1m 17s   remaining: 1m 4s
547:    learn: 0.2045426        total: 1m 17s   remaining: 1m 4s
548:    learn: 0.2044335        total: 1m 18s   remaining: 1m 4s
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549:    learn: 0.2043456        total: 1m 18s   remaining: 1m 3s
550:    learn: 0.2042378        total: 1m 18s   remaining: 1m 3s
551:    learn: 0.2041612        total: 1m 18s   remaining: 1m 3s
552:    learn: 0.2040799        total: 1m 18s   remaining: 1m 3s
553:    learn: 0.2039892        total: 1m 18s   remaining: 1m 3s
554:    learn: 0.2038903        total: 1m 18s   remaining: 1m 3s
555:    learn: 0.2037922        total: 1m 19s   remaining: 1m 3s
556:    learn: 0.2037030        total: 1m 19s   remaining: 1m 2s
557:    learn: 0.2036025        total: 1m 19s   remaining: 1m 2s
558:    learn: 0.2034993        total: 1m 19s   remaining: 1m 2s
559:    learn: 0.2033970        total: 1m 19s   remaining: 1m 2s
560:    learn: 0.2033046        total: 1m 19s   remaining: 1m 2s
561:    learn: 0.2032222        total: 1m 19s   remaining: 1m 2s
562:    learn: 0.2031197        total: 1m 20s   remaining: 1m 2s
563:    learn: 0.2030449        total: 1m 20s   remaining: 1m 1s
564:    learn: 0.2029395        total: 1m 20s   remaining: 1m 1s
565:    learn: 0.2028532        total: 1m 20s   remaining: 1m 1s
566:    learn: 0.2027539        total: 1m 20s   remaining: 1m 1s
567:    learn: 0.2026621        total: 1m 20s   remaining: 1m 1s
568:    learn: 0.2025678        total: 1m 20s   remaining: 1m 1s
569:    learn: 0.2024608        total: 1m 20s   remaining: 1m 1s
570:    learn: 0.2023783        total: 1m 21s   remaining: 1m
571:    learn: 0.2022834        total: 1m 21s   remaining: 1m
572:    learn: 0.2021921        total: 1m 21s   remaining: 1m
573:    learn: 0.2020991        total: 1m 21s   remaining: 1m
574:    learn: 0.2020078        total: 1m 21s   remaining: 1m
575:    learn: 0.2019044        total: 1m 21s   remaining: 1m
576:    learn: 0.2018093        total: 1m 21s   remaining: 1m
577:    learn: 0.2017238        total: 1m 22s   remaining: 59.9s
578:    learn: 0.2016364        total: 1m 22s   remaining: 59.8s
579:    learn: 0.2015355        total: 1m 22s   remaining: 59.6s
580:    learn: 0.2014465        total: 1m 22s   remaining: 59.5s
581:    learn: 0.2013487        total: 1m 22s   remaining: 59.3s
582:    learn: 0.2012604        total: 1m 22s   remaining: 59.2s
583:    learn: 0.2011639        total: 1m 22s   remaining: 59.1s
584:    learn: 0.2010640        total: 1m 23s   remaining: 58.9s
585:    learn: 0.2009775        total: 1m 23s   remaining: 58.8s
586:    learn: 0.2008905        total: 1m 23s   remaining: 58.6s
587:    learn: 0.2008058        total: 1m 23s   remaining: 58.5s
588:    learn: 0.2007214        total: 1m 23s   remaining: 58.3s
589:    learn: 0.2006445        total: 1m 23s   remaining: 58.2s
590:    learn: 0.2005485        total: 1m 23s   remaining: 58.1s
591:    learn: 0.2004649        total: 1m 24s   remaining: 57.9s
592:    learn: 0.2003805        total: 1m 24s   remaining: 57.8s
593:    learn: 0.2002742        total: 1m 24s   remaining: 57.6s
594:    learn: 0.2001865        total: 1m 24s   remaining: 57.5s
595:    learn: 0.2001063        total: 1m 24s   remaining: 57.3s
596:    learn: 0.2000090        total: 1m 24s   remaining: 57.2s
597:    learn: 0.1999081        total: 1m 24s   remaining: 57.1s
598:    learn: 0.1997995        total: 1m 25s   remaining: 56.9s
599:    learn: 0.1997048        total: 1m 25s   remaining: 56.8s
600:    learn: 0.1996271        total: 1m 25s   remaining: 56.6s
601:    learn: 0.1995354        total: 1m 25s   remaining: 56.5s
602:    learn: 0.1994463        total: 1m 25s   remaining: 56.3s
603:    learn: 0.1993420        total: 1m 25s   remaining: 56.2s
604:    learn: 0.1992562        total: 1m 25s   remaining: 56.1s
605:    learn: 0.1991625        total: 1m 26s   remaining: 55.9s
606:    learn: 0.1990636        total: 1m 26s   remaining: 55.8s
607:    learn: 0.1989728        total: 1m 26s   remaining: 55.6s
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608:    learn: 0.1988888        total: 1m 26s   remaining: 55.5s
609:    learn: 0.1988060        total: 1m 26s   remaining: 55.3s
610:    learn: 0.1987068        total: 1m 26s   remaining: 55.2s
611:    learn: 0.1986260        total: 1m 26s   remaining: 55.1s
612:    learn: 0.1985328        total: 1m 27s   remaining: 54.9s
613:    learn: 0.1984409        total: 1m 27s   remaining: 54.8s
614:    learn: 0.1983458        total: 1m 27s   remaining: 54.7s
615:    learn: 0.1982607        total: 1m 27s   remaining: 54.5s
616:    learn: 0.1981858        total: 1m 27s   remaining: 54.4s
617:    learn: 0.1981002        total: 1m 27s   remaining: 54.2s
618:    learn: 0.1980102        total: 1m 27s   remaining: 54.1s
619:    learn: 0.1979307        total: 1m 27s   remaining: 53.9s
620:    learn: 0.1978435        total: 1m 28s   remaining: 53.8s
621:    learn: 0.1977613        total: 1m 28s   remaining: 53.6s
622:    learn: 0.1976821        total: 1m 28s   remaining: 53.5s
623:    learn: 0.1975985        total: 1m 28s   remaining: 53.4s
624:    learn: 0.1974986        total: 1m 28s   remaining: 53.2s
625:    learn: 0.1974066        total: 1m 28s   remaining: 53.1s
626:    learn: 0.1973226        total: 1m 28s   remaining: 52.9s
627:    learn: 0.1972319        total: 1m 29s   remaining: 52.8s
628:    learn: 0.1971566        total: 1m 29s   remaining: 52.7s
629:    learn: 0.1970863        total: 1m 29s   remaining: 52.5s
630:    learn: 0.1970029        total: 1m 29s   remaining: 52.4s
631:    learn: 0.1969125        total: 1m 29s   remaining: 52.3s
632:    learn: 0.1968262        total: 1m 29s   remaining: 52.1s
633:    learn: 0.1967343        total: 1m 30s   remaining: 52s
634:    learn: 0.1966446        total: 1m 30s   remaining: 51.9s
635:    learn: 0.1965648        total: 1m 30s   remaining: 51.8s
636:    learn: 0.1964779        total: 1m 30s   remaining: 51.6s
637:    learn: 0.1963886        total: 1m 30s   remaining: 51.5s
638:    learn: 0.1962941        total: 1m 30s   remaining: 51.3s
639:    learn: 0.1962007        total: 1m 31s   remaining: 51.2s
640:    learn: 0.1961125        total: 1m 31s   remaining: 51.1s
641:    learn: 0.1960284        total: 1m 31s   remaining: 50.9s
642:    learn: 0.1959442        total: 1m 31s   remaining: 50.8s
643:    learn: 0.1958814        total: 1m 31s   remaining: 50.6s
644:    learn: 0.1957948        total: 1m 31s   remaining: 50.5s
645:    learn: 0.1957023        total: 1m 31s   remaining: 50.3s
646:    learn: 0.1956134        total: 1m 32s   remaining: 50.2s
647:    learn: 0.1955297        total: 1m 32s   remaining: 50.1s
648:    learn: 0.1954526        total: 1m 32s   remaining: 49.9s
649:    learn: 0.1953663        total: 1m 32s   remaining: 49.8s
650:    learn: 0.1952839        total: 1m 32s   remaining: 49.6s
651:    learn: 0.1952046        total: 1m 32s   remaining: 49.5s
652:    learn: 0.1951156        total: 1m 32s   remaining: 49.3s
653:    learn: 0.1950314        total: 1m 32s   remaining: 49.2s
654:    learn: 0.1949556        total: 1m 33s   remaining: 49s
655:    learn: 0.1948835        total: 1m 33s   remaining: 48.9s
656:    learn: 0.1948020        total: 1m 33s   remaining: 48.8s
657:    learn: 0.1947299        total: 1m 33s   remaining: 48.6s
658:    learn: 0.1946516        total: 1m 33s   remaining: 48.5s
659:    learn: 0.1945711        total: 1m 33s   remaining: 48.3s
660:    learn: 0.1944856        total: 1m 33s   remaining: 48.2s
661:    learn: 0.1944028        total: 1m 34s   remaining: 48.1s
662:    learn: 0.1943217        total: 1m 34s   remaining: 47.9s
663:    learn: 0.1942563        total: 1m 34s   remaining: 47.8s
664:    learn: 0.1941802        total: 1m 34s   remaining: 47.6s
665:    learn: 0.1941047        total: 1m 34s   remaining: 47.5s
666:    learn: 0.1940330        total: 1m 34s   remaining: 47.3s
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667:    learn: 0.1939529        total: 1m 34s   remaining: 47.2s
668:    learn: 0.1938587        total: 1m 35s   remaining: 47s
669:    learn: 0.1937536        total: 1m 35s   remaining: 46.9s
670:    learn: 0.1936657        total: 1m 35s   remaining: 46.7s
671:    learn: 0.1935933        total: 1m 35s   remaining: 46.6s
672:    learn: 0.1934973        total: 1m 35s   remaining: 46.5s
673:    learn: 0.1934274        total: 1m 35s   remaining: 46.3s
674:    learn: 0.1933382        total: 1m 35s   remaining: 46.2s
675:    learn: 0.1932657        total: 1m 36s   remaining: 46s
676:    learn: 0.1931864        total: 1m 36s   remaining: 45.9s
677:    learn: 0.1931076        total: 1m 36s   remaining: 45.8s
678:    learn: 0.1930363        total: 1m 36s   remaining: 45.6s
679:    learn: 0.1929637        total: 1m 36s   remaining: 45.5s
680:    learn: 0.1928946        total: 1m 36s   remaining: 45.3s
681:    learn: 0.1927999        total: 1m 36s   remaining: 45.2s
682:    learn: 0.1927144        total: 1m 37s   remaining: 45s
683:    learn: 0.1926305        total: 1m 37s   remaining: 44.9s
684:    learn: 0.1925544        total: 1m 37s   remaining: 44.8s
685:    learn: 0.1924680        total: 1m 37s   remaining: 44.6s
686:    learn: 0.1924032        total: 1m 37s   remaining: 44.5s
687:    learn: 0.1923213        total: 1m 37s   remaining: 44.3s
688:    learn: 0.1922342        total: 1m 37s   remaining: 44.2s
689:    learn: 0.1921464        total: 1m 38s   remaining: 44.1s
690:    learn: 0.1920554        total: 1m 38s   remaining: 43.9s
691:    learn: 0.1919885        total: 1m 38s   remaining: 43.8s
692:    learn: 0.1919119        total: 1m 38s   remaining: 43.6s
693:    learn: 0.1918241        total: 1m 38s   remaining: 43.5s
694:    learn: 0.1917494        total: 1m 38s   remaining: 43.4s
695:    learn: 0.1916615        total: 1m 38s   remaining: 43.2s
696:    learn: 0.1915862        total: 1m 39s   remaining: 43.1s
697:    learn: 0.1915108        total: 1m 39s   remaining: 42.9s
698:    learn: 0.1914239        total: 1m 39s   remaining: 42.8s
699:    learn: 0.1913435        total: 1m 39s   remaining: 42.6s
700:    learn: 0.1912611        total: 1m 39s   remaining: 42.5s
701:    learn: 0.1911740        total: 1m 39s   remaining: 42.4s
702:    learn: 0.1910941        total: 1m 39s   remaining: 42.2s
703:    learn: 0.1910323        total: 1m 40s   remaining: 42.1s
704:    learn: 0.1909443        total: 1m 40s   remaining: 41.9s
705:    learn: 0.1908637        total: 1m 40s   remaining: 41.8s
706:    learn: 0.1907880        total: 1m 40s   remaining: 41.6s
707:    learn: 0.1906904        total: 1m 40s   remaining: 41.5s
708:    learn: 0.1905980        total: 1m 40s   remaining: 41.4s
709:    learn: 0.1905299        total: 1m 40s   remaining: 41.2s
710:    learn: 0.1904544        total: 1m 41s   remaining: 41.1s
711:    learn: 0.1903686        total: 1m 41s   remaining: 40.9s
712:    learn: 0.1903072        total: 1m 41s   remaining: 40.8s
713:    learn: 0.1902239        total: 1m 41s   remaining: 40.7s
714:    learn: 0.1901492        total: 1m 41s   remaining: 40.5s
715:    learn: 0.1900655        total: 1m 41s   remaining: 40.4s
716:    learn: 0.1899893        total: 1m 41s   remaining: 40.2s
717:    learn: 0.1899022        total: 1m 42s   remaining: 40.1s
718:    learn: 0.1898249        total: 1m 42s   remaining: 39.9s
719:    learn: 0.1897466        total: 1m 42s   remaining: 39.8s
720:    learn: 0.1896745        total: 1m 42s   remaining: 39.7s
721:    learn: 0.1895896        total: 1m 42s   remaining: 39.5s
722:    learn: 0.1895038        total: 1m 42s   remaining: 39.4s
723:    learn: 0.1894363        total: 1m 42s   remaining: 39.2s
724:    learn: 0.1893472        total: 1m 43s   remaining: 39.1s
725:    learn: 0.1892714        total: 1m 43s   remaining: 39s
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726:    learn: 0.1891941        total: 1m 43s   remaining: 38.8s
727:    learn: 0.1891184        total: 1m 43s   remaining: 38.7s
728:    learn: 0.1890566        total: 1m 43s   remaining: 38.5s
729:    learn: 0.1889957        total: 1m 43s   remaining: 38.4s
730:    learn: 0.1889196        total: 1m 43s   remaining: 38.2s
731:    learn: 0.1888423        total: 1m 44s   remaining: 38.1s
732:    learn: 0.1887884        total: 1m 44s   remaining: 37.9s
733:    learn: 0.1887035        total: 1m 44s   remaining: 37.8s
734:    learn: 0.1886162        total: 1m 44s   remaining: 37.7s
735:    learn: 0.1885312        total: 1m 44s   remaining: 37.5s
736:    learn: 0.1884490        total: 1m 44s   remaining: 37.4s
737:    learn: 0.1883630        total: 1m 44s   remaining: 37.3s
738:    learn: 0.1882766        total: 1m 45s   remaining: 37.1s
739:    learn: 0.1881832        total: 1m 45s   remaining: 37s
740:    learn: 0.1881019        total: 1m 45s   remaining: 36.9s
741:    learn: 0.1880296        total: 1m 45s   remaining: 36.7s
742:    learn: 0.1879590        total: 1m 45s   remaining: 36.6s
743:    learn: 0.1878791        total: 1m 46s   remaining: 36.5s
744:    learn: 0.1878083        total: 1m 46s   remaining: 36.4s
745:    learn: 0.1877192        total: 1m 46s   remaining: 36.2s
746:    learn: 0.1876431        total: 1m 46s   remaining: 36.1s
747:    learn: 0.1875650        total: 1m 46s   remaining: 35.9s
748:    learn: 0.1874834        total: 1m 46s   remaining: 35.8s
749:    learn: 0.1874161        total: 1m 46s   remaining: 35.7s
750:    learn: 0.1873358        total: 1m 47s   remaining: 35.5s
751:    learn: 0.1872565        total: 1m 47s   remaining: 35.4s
752:    learn: 0.1871751        total: 1m 47s   remaining: 35.2s
753:    learn: 0.1871113        total: 1m 47s   remaining: 35.1s
754:    learn: 0.1870351        total: 1m 47s   remaining: 34.9s
755:    learn: 0.1869539        total: 1m 47s   remaining: 34.8s
756:    learn: 0.1868708        total: 1m 48s   remaining: 34.7s
757:    learn: 0.1868040        total: 1m 48s   remaining: 34.5s
758:    learn: 0.1867306        total: 1m 48s   remaining: 34.4s
759:    learn: 0.1866584        total: 1m 48s   remaining: 34.2s
760:    learn: 0.1865986        total: 1m 48s   remaining: 34.1s
761:    learn: 0.1865222        total: 1m 48s   remaining: 34s
762:    learn: 0.1864450        total: 1m 48s   remaining: 33.8s
763:    learn: 0.1863781        total: 1m 48s   remaining: 33.7s
764:    learn: 0.1863135        total: 1m 49s   remaining: 33.5s
765:    learn: 0.1862395        total: 1m 49s   remaining: 33.4s
766:    learn: 0.1861531        total: 1m 49s   remaining: 33.2s
767:    learn: 0.1860686        total: 1m 49s   remaining: 33.1s
768:    learn: 0.1860032        total: 1m 49s   remaining: 33s
769:    learn: 0.1859223        total: 1m 49s   remaining: 32.8s
770:    learn: 0.1858469        total: 1m 49s   remaining: 32.7s
771:    learn: 0.1857632        total: 1m 50s   remaining: 32.5s
772:    learn: 0.1856900        total: 1m 50s   remaining: 32.4s
773:    learn: 0.1856147        total: 1m 50s   remaining: 32.2s
774:    learn: 0.1855518        total: 1m 50s   remaining: 32.1s
775:    learn: 0.1854788        total: 1m 50s   remaining: 31.9s
776:    learn: 0.1854135        total: 1m 50s   remaining: 31.8s
777:    learn: 0.1853469        total: 1m 50s   remaining: 31.7s
778:    learn: 0.1852771        total: 1m 51s   remaining: 31.5s
779:    learn: 0.1852013        total: 1m 51s   remaining: 31.4s
780:    learn: 0.1851373        total: 1m 51s   remaining: 31.2s
781:    learn: 0.1850630        total: 1m 51s   remaining: 31.1s
782:    learn: 0.1849928        total: 1m 51s   remaining: 30.9s
783:    learn: 0.1849170        total: 1m 51s   remaining: 30.8s
784:    learn: 0.1848301        total: 1m 51s   remaining: 30.7s
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785:    learn: 0.1847626        total: 1m 52s   remaining: 30.5s
786:    learn: 0.1846810        total: 1m 52s   remaining: 30.4s
787:    learn: 0.1846104        total: 1m 52s   remaining: 30.2s
788:    learn: 0.1845144        total: 1m 52s   remaining: 30.1s
789:    learn: 0.1844491        total: 1m 52s   remaining: 30s
790:    learn: 0.1843911        total: 1m 52s   remaining: 29.8s
791:    learn: 0.1843288        total: 1m 52s   remaining: 29.7s
792:    learn: 0.1842673        total: 1m 53s   remaining: 29.5s
793:    learn: 0.1841906        total: 1m 53s   remaining: 29.4s
794:    learn: 0.1841188        total: 1m 53s   remaining: 29.2s
795:    learn: 0.1840386        total: 1m 53s   remaining: 29.1s
796:    learn: 0.1839733        total: 1m 53s   remaining: 28.9s
797:    learn: 0.1839020        total: 1m 53s   remaining: 28.8s
798:    learn: 0.1838301        total: 1m 53s   remaining: 28.7s
799:    learn: 0.1837579        total: 1m 54s   remaining: 28.5s
800:    learn: 0.1836911        total: 1m 54s   remaining: 28.4s
801:    learn: 0.1836155        total: 1m 54s   remaining: 28.2s
802:    learn: 0.1835523        total: 1m 54s   remaining: 28.1s
803:    learn: 0.1834870        total: 1m 54s   remaining: 28s
804:    learn: 0.1834205        total: 1m 54s   remaining: 27.8s
805:    learn: 0.1833475        total: 1m 54s   remaining: 27.7s
806:    learn: 0.1832862        total: 1m 55s   remaining: 27.5s
807:    learn: 0.1832139        total: 1m 55s   remaining: 27.4s
808:    learn: 0.1831467        total: 1m 55s   remaining: 27.2s
809:    learn: 0.1830713        total: 1m 55s   remaining: 27.1s
810:    learn: 0.1830121        total: 1m 55s   remaining: 27s
811:    learn: 0.1829339        total: 1m 55s   remaining: 26.8s
812:    learn: 0.1828570        total: 1m 55s   remaining: 26.7s
813:    learn: 0.1827717        total: 1m 56s   remaining: 26.5s
814:    learn: 0.1826914        total: 1m 56s   remaining: 26.4s
815:    learn: 0.1825978        total: 1m 56s   remaining: 26.3s
816:    learn: 0.1825223        total: 1m 56s   remaining: 26.1s
817:    learn: 0.1824583        total: 1m 56s   remaining: 26s
818:    learn: 0.1824038        total: 1m 56s   remaining: 25.8s
819:    learn: 0.1823392        total: 1m 56s   remaining: 25.7s
820:    learn: 0.1822677        total: 1m 57s   remaining: 25.5s
821:    learn: 0.1821917        total: 1m 57s   remaining: 25.4s
822:    learn: 0.1821157        total: 1m 57s   remaining: 25.2s
823:    learn: 0.1820545        total: 1m 57s   remaining: 25.1s
824:    learn: 0.1819908        total: 1m 57s   remaining: 25s
825:    learn: 0.1819203        total: 1m 57s   remaining: 24.8s
826:    learn: 0.1818465        total: 1m 57s   remaining: 24.7s
827:    learn: 0.1817726        total: 1m 58s   remaining: 24.5s
828:    learn: 0.1816939        total: 1m 58s   remaining: 24.4s
829:    learn: 0.1816227        total: 1m 58s   remaining: 24.3s
830:    learn: 0.1815498        total: 1m 58s   remaining: 24.1s
831:    learn: 0.1814796        total: 1m 58s   remaining: 24s
832:    learn: 0.1814175        total: 1m 58s   remaining: 23.8s
833:    learn: 0.1813602        total: 1m 58s   remaining: 23.7s
834:    learn: 0.1812794        total: 1m 59s   remaining: 23.5s
835:    learn: 0.1812119        total: 1m 59s   remaining: 23.4s
836:    learn: 0.1811431        total: 1m 59s   remaining: 23.3s
837:    learn: 0.1810744        total: 1m 59s   remaining: 23.1s
838:    learn: 0.1810016        total: 1m 59s   remaining: 23s
839:    learn: 0.1809175        total: 1m 59s   remaining: 22.8s
840:    learn: 0.1808411        total: 2m       remaining: 22.7s
841:    learn: 0.1807762        total: 2m       remaining: 22.5s
842:    learn: 0.1807175        total: 2m       remaining: 22.4s
843:    learn: 0.1806506        total: 2m       remaining: 22.3s
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844:    learn: 0.1805963        total: 2m       remaining: 22.1s
845:    learn: 0.1805435        total: 2m       remaining: 22s
846:    learn: 0.1804709        total: 2m       remaining: 21.8s
847:    learn: 0.1804074        total: 2m       remaining: 21.7s
848:    learn: 0.1803401        total: 2m 1s    remaining: 21.5s
849:    learn: 0.1802639        total: 2m 1s    remaining: 21.4s
850:    learn: 0.1801986        total: 2m 1s    remaining: 21.3s
851:    learn: 0.1801406        total: 2m 1s    remaining: 21.1s
852:    learn: 0.1800667        total: 2m 1s    remaining: 21s
853:    learn: 0.1800033        total: 2m 2s    remaining: 20.9s
854:    learn: 0.1799306        total: 2m 2s    remaining: 20.7s
855:    learn: 0.1798514        total: 2m 2s    remaining: 20.6s
856:    learn: 0.1797938        total: 2m 2s    remaining: 20.4s
857:    learn: 0.1797280        total: 2m 2s    remaining: 20.3s
858:    learn: 0.1796566        total: 2m 2s    remaining: 20.2s
859:    learn: 0.1795964        total: 2m 2s    remaining: 20s
860:    learn: 0.1795273        total: 2m 3s    remaining: 19.9s
861:    learn: 0.1794450        total: 2m 3s    remaining: 19.7s
862:    learn: 0.1793855        total: 2m 3s    remaining: 19.6s
863:    learn: 0.1793266        total: 2m 3s    remaining: 19.4s
864:    learn: 0.1792661        total: 2m 3s    remaining: 19.3s
865:    learn: 0.1792068        total: 2m 3s    remaining: 19.2s
866:    learn: 0.1791457        total: 2m 3s    remaining: 19s
867:    learn: 0.1790925        total: 2m 4s    remaining: 18.9s
868:    learn: 0.1790432        total: 2m 4s    remaining: 18.7s
869:    learn: 0.1789657        total: 2m 4s    remaining: 18.6s
870:    learn: 0.1788946        total: 2m 4s    remaining: 18.4s
871:    learn: 0.1788323        total: 2m 4s    remaining: 18.3s
872:    learn: 0.1787723        total: 2m 4s    remaining: 18.2s
873:    learn: 0.1786992        total: 2m 4s    remaining: 18s
874:    learn: 0.1786304        total: 2m 5s    remaining: 17.9s
875:    learn: 0.1785803        total: 2m 5s    remaining: 17.7s
876:    learn: 0.1785174        total: 2m 5s    remaining: 17.6s
877:    learn: 0.1784476        total: 2m 5s    remaining: 17.4s
878:    learn: 0.1783800        total: 2m 5s    remaining: 17.3s
879:    learn: 0.1783062        total: 2m 5s    remaining: 17.2s
880:    learn: 0.1782326        total: 2m 5s    remaining: 17s
881:    learn: 0.1781753        total: 2m 6s    remaining: 16.9s
882:    learn: 0.1781232        total: 2m 6s    remaining: 16.7s
883:    learn: 0.1780693        total: 2m 6s    remaining: 16.6s
884:    learn: 0.1780146        total: 2m 6s    remaining: 16.4s
885:    learn: 0.1779601        total: 2m 6s    remaining: 16.3s
886:    learn: 0.1778987        total: 2m 6s    remaining: 16.1s
887:    learn: 0.1778424        total: 2m 6s    remaining: 16s
888:    learn: 0.1777720        total: 2m 7s    remaining: 15.9s
889:    learn: 0.1777118        total: 2m 7s    remaining: 15.7s
890:    learn: 0.1776494        total: 2m 7s    remaining: 15.6s
891:    learn: 0.1775868        total: 2m 7s    remaining: 15.4s
892:    learn: 0.1775231        total: 2m 7s    remaining: 15.3s
893:    learn: 0.1774659        total: 2m 7s    remaining: 15.1s
894:    learn: 0.1774081        total: 2m 7s    remaining: 15s
895:    learn: 0.1773355        total: 2m 8s    remaining: 14.9s
896:    learn: 0.1772689        total: 2m 8s    remaining: 14.7s
897:    learn: 0.1772128        total: 2m 8s    remaining: 14.6s
898:    learn: 0.1771440        total: 2m 8s    remaining: 14.4s
899:    learn: 0.1770762        total: 2m 8s    remaining: 14.3s
900:    learn: 0.1770082        total: 2m 8s    remaining: 14.1s
901:    learn: 0.1769351        total: 2m 8s    remaining: 14s
902:    learn: 0.1768763        total: 2m 9s    remaining: 13.9s
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903:    learn: 0.1768167        total: 2m 9s    remaining: 13.7s
904:    learn: 0.1767546        total: 2m 9s    remaining: 13.6s
905:    learn: 0.1766943        total: 2m 9s    remaining: 13.4s
906:    learn: 0.1766288        total: 2m 9s    remaining: 13.3s
907:    learn: 0.1765486        total: 2m 9s    remaining: 13.1s
908:    learn: 0.1764962        total: 2m 9s    remaining: 13s
909:    learn: 0.1764279        total: 2m 10s   remaining: 12.9s
910:    learn: 0.1763583        total: 2m 10s   remaining: 12.7s
911:    learn: 0.1762878        total: 2m 10s   remaining: 12.6s
912:    learn: 0.1762312        total: 2m 10s   remaining: 12.4s
913:    learn: 0.1761651        total: 2m 10s   remaining: 12.3s
914:    learn: 0.1760964        total: 2m 10s   remaining: 12.1s
915:    learn: 0.1760321        total: 2m 10s   remaining: 12s
916:    learn: 0.1759695        total: 2m 11s   remaining: 11.9s
917:    learn: 0.1759017        total: 2m 11s   remaining: 11.7s
918:    learn: 0.1758365        total: 2m 11s   remaining: 11.6s
919:    learn: 0.1757637        total: 2m 11s   remaining: 11.4s
920:    learn: 0.1756880        total: 2m 11s   remaining: 11.3s
921:    learn: 0.1756278        total: 2m 11s   remaining: 11.1s
922:    learn: 0.1755676        total: 2m 11s   remaining: 11s
923:    learn: 0.1755070        total: 2m 12s   remaining: 10.9s
924:    learn: 0.1754454        total: 2m 12s   remaining: 10.7s
925:    learn: 0.1753816        total: 2m 12s   remaining: 10.6s
926:    learn: 0.1753307        total: 2m 12s   remaining: 10.4s
927:    learn: 0.1752636        total: 2m 12s   remaining: 10.3s
928:    learn: 0.1751959        total: 2m 12s   remaining: 10.1s
929:    learn: 0.1751519        total: 2m 12s   remaining: 10s
930:    learn: 0.1750846        total: 2m 13s   remaining: 9.86s
931:    learn: 0.1750185        total: 2m 13s   remaining: 9.72s
932:    learn: 0.1749517        total: 2m 13s   remaining: 9.57s
933:    learn: 0.1748838        total: 2m 13s   remaining: 9.43s
934:    learn: 0.1748055        total: 2m 13s   remaining: 9.29s
935:    learn: 0.1747463        total: 2m 13s   remaining: 9.14s
936:    learn: 0.1746949        total: 2m 13s   remaining: 9s
937:    learn: 0.1746356        total: 2m 14s   remaining: 8.86s
938:    learn: 0.1745841        total: 2m 14s   remaining: 8.71s
939:    learn: 0.1745304        total: 2m 14s   remaining: 8.57s
940:    learn: 0.1744683        total: 2m 14s   remaining: 8.43s
941:    learn: 0.1744113        total: 2m 14s   remaining: 8.29s
942:    learn: 0.1743546        total: 2m 14s   remaining: 8.14s
943:    learn: 0.1743017        total: 2m 14s   remaining: 8s
944:    learn: 0.1742521        total: 2m 15s   remaining: 7.86s
945:    learn: 0.1741826        total: 2m 15s   remaining: 7.71s
946:    learn: 0.1741153        total: 2m 15s   remaining: 7.57s
947:    learn: 0.1740389        total: 2m 15s   remaining: 7.43s
948:    learn: 0.1739899        total: 2m 15s   remaining: 7.29s
949:    learn: 0.1739370        total: 2m 15s   remaining: 7.14s
950:    learn: 0.1738772        total: 2m 15s   remaining: 7s
951:    learn: 0.1738252        total: 2m 15s   remaining: 6.86s
952:    learn: 0.1737615        total: 2m 16s   remaining: 6.71s
953:    learn: 0.1736996        total: 2m 16s   remaining: 6.57s
954:    learn: 0.1736427        total: 2m 16s   remaining: 6.43s
955:    learn: 0.1735850        total: 2m 16s   remaining: 6.28s
956:    learn: 0.1735099        total: 2m 16s   remaining: 6.14s
957:    learn: 0.1734534        total: 2m 16s   remaining: 6s
958:    learn: 0.1733888        total: 2m 16s   remaining: 5.86s
959:    learn: 0.1733234        total: 2m 17s   remaining: 5.71s
960:    learn: 0.1732706        total: 2m 17s   remaining: 5.57s
961:    learn: 0.1732003        total: 2m 17s   remaining: 5.43s
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962:    learn: 0.1731464        total: 2m 17s   remaining: 5.29s
963:    learn: 0.1730872        total: 2m 17s   remaining: 5.15s
964:    learn: 0.1730224        total: 2m 18s   remaining: 5.01s
965:    learn: 0.1729725        total: 2m 18s   remaining: 4.86s
966:    learn: 0.1729120        total: 2m 18s   remaining: 4.72s
967:    learn: 0.1728496        total: 2m 18s   remaining: 4.58s
968:    learn: 0.1727730        total: 2m 18s   remaining: 4.43s
969:    learn: 0.1727090        total: 2m 18s   remaining: 4.29s
970:    learn: 0.1726449        total: 2m 18s   remaining: 4.15s
971:    learn: 0.1725804        total: 2m 19s   remaining: 4.01s
972:    learn: 0.1725242        total: 2m 19s   remaining: 3.86s
973:    learn: 0.1724557        total: 2m 19s   remaining: 3.72s
974:    learn: 0.1723829        total: 2m 19s   remaining: 3.58s
975:    learn: 0.1723206        total: 2m 19s   remaining: 3.43s
976:    learn: 0.1722651        total: 2m 19s   remaining: 3.29s
977:    learn: 0.1721877        total: 2m 19s   remaining: 3.15s
978:    learn: 0.1721276        total: 2m 20s   remaining: 3s
979:    learn: 0.1720720        total: 2m 20s   remaining: 2.86s
980:    learn: 0.1720150        total: 2m 20s   remaining: 2.72s
981:    learn: 0.1719492        total: 2m 20s   remaining: 2.58s
982:    learn: 0.1718763        total: 2m 20s   remaining: 2.43s
983:    learn: 0.1718121        total: 2m 20s   remaining: 2.29s
984:    learn: 0.1717495        total: 2m 20s   remaining: 2.15s
985:    learn: 0.1716889        total: 2m 21s   remaining: 2s
986:    learn: 0.1716300        total: 2m 21s   remaining: 1.86s
987:    learn: 0.1715603        total: 2m 21s   remaining: 1.72s
988:    learn: 0.1715092        total: 2m 21s   remaining: 1.57s
989:    learn: 0.1714524        total: 2m 21s   remaining: 1.43s
990:    learn: 0.1713859        total: 2m 21s   remaining: 1.29s
991:    learn: 0.1713347        total: 2m 21s   remaining: 1.14s
992:    learn: 0.1712775        total: 2m 22s   remaining: 1s
993:    learn: 0.1712248        total: 2m 22s   remaining: 858ms
994:    learn: 0.1711698        total: 2m 22s   remaining: 715ms
995:    learn: 0.1711154        total: 2m 22s   remaining: 572ms
996:    learn: 0.1710516        total: 2m 22s   remaining: 429ms
997:    learn: 0.1709866        total: 2m 22s   remaining: 286ms
998:    learn: 0.1709419        total: 2m 22s   remaining: 143ms
999:    learn: 0.1708871        total: 2m 23s   remaining: 0us
[CV]  learning_rate=0.03, l2_leaf_reg=3, iterations=1000, depth=8, ctr_b
order_count=200, border_count=50, score=0.8853137653752899, total= 2.5mi
n
[CV] learning_rate=0.03, l2_leaf_reg=3, iterations=1000, depth=8, ctr_bo
rder_count=200, border_count=50
0:      learn: 0.6667211        total: 185ms    remaining: 3m 4s
1:      learn: 0.6423924        total: 376ms    remaining: 3m 7s
2:      learn: 0.6193781        total: 582ms    remaining: 3m 13s
3:      learn: 0.5981854        total: 805ms    remaining: 3m 20s
4:      learn: 0.5782176        total: 1s       remaining: 3m 20s
5:      learn: 0.5599923        total: 1.18s    remaining: 3m 15s
6:      learn: 0.5426592        total: 1.32s    remaining: 3m 7s
7:      learn: 0.5268088        total: 1.47s    remaining: 3m 2s
8:      learn: 0.5118865        total: 1.62s    remaining: 2m 58s
9:      learn: 0.4983994        total: 1.77s    remaining: 2m 55s
10:     learn: 0.4854252        total: 1.93s    remaining: 2m 53s
11:     learn: 0.4734047        total: 2.08s    remaining: 2m 51s
12:     learn: 0.4625733        total: 2.24s    remaining: 2m 49s
13:     learn: 0.4521563        total: 2.38s    remaining: 2m 47s
14:     learn: 0.4425595        total: 2.55s    remaining: 2m 47s
15:     learn: 0.4333093        total: 2.7s     remaining: 2m 46s
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16:     learn: 0.4245989        total: 2.86s    remaining: 2m 45s
17:     learn: 0.4169277        total: 3s       remaining: 2m 43s
18:     learn: 0.4098066        total: 3.17s    remaining: 2m 43s
19:     learn: 0.4029020        total: 3.32s    remaining: 2m 42s
20:     learn: 0.3965064        total: 3.5s     remaining: 2m 43s
21:     learn: 0.3906171        total: 3.66s    remaining: 2m 42s
22:     learn: 0.3845957        total: 3.83s    remaining: 2m 42s
23:     learn: 0.3793720        total: 3.98s    remaining: 2m 41s
24:     learn: 0.3742843        total: 4.13s    remaining: 2m 40s
25:     learn: 0.3696507        total: 4.29s    remaining: 2m 40s
26:     learn: 0.3651552        total: 4.43s    remaining: 2m 39s
27:     learn: 0.3611615        total: 4.59s    remaining: 2m 39s
28:     learn: 0.3572396        total: 4.74s    remaining: 2m 38s
29:     learn: 0.3536760        total: 4.88s    remaining: 2m 37s
30:     learn: 0.3503140        total: 5.03s    remaining: 2m 37s
31:     learn: 0.3467873        total: 5.17s    remaining: 2m 36s
32:     learn: 0.3437323        total: 5.32s    remaining: 2m 35s
33:     learn: 0.3407382        total: 5.46s    remaining: 2m 35s
34:     learn: 0.3379681        total: 5.61s    remaining: 2m 34s
35:     learn: 0.3354757        total: 5.77s    remaining: 2m 34s
36:     learn: 0.3328732        total: 5.92s    remaining: 2m 34s
37:     learn: 0.3306661        total: 6.06s    remaining: 2m 33s
38:     learn: 0.3285252        total: 6.2s     remaining: 2m 32s
39:     learn: 0.3264190        total: 6.33s    remaining: 2m 31s
40:     learn: 0.3244032        total: 6.47s    remaining: 2m 31s
41:     learn: 0.3225342        total: 6.61s    remaining: 2m 30s
42:     learn: 0.3207324        total: 6.75s    remaining: 2m 30s
43:     learn: 0.3190631        total: 6.9s     remaining: 2m 29s
44:     learn: 0.3174414        total: 7.04s    remaining: 2m 29s
45:     learn: 0.3158567        total: 7.17s    remaining: 2m 28s
46:     learn: 0.3145421        total: 7.3s     remaining: 2m 28s
47:     learn: 0.3131268        total: 7.44s    remaining: 2m 27s
48:     learn: 0.3118021        total: 7.59s    remaining: 2m 27s
49:     learn: 0.3105883        total: 7.72s    remaining: 2m 26s
50:     learn: 0.3093536        total: 7.86s    remaining: 2m 26s
51:     learn: 0.3082609        total: 8s       remaining: 2m 25s
52:     learn: 0.3071105        total: 8.13s    remaining: 2m 25s
53:     learn: 0.3059613        total: 8.27s    remaining: 2m 24s
54:     learn: 0.3048933        total: 8.42s    remaining: 2m 24s
55:     learn: 0.3039477        total: 8.56s    remaining: 2m 24s
56:     learn: 0.3029913        total: 8.69s    remaining: 2m 23s
57:     learn: 0.3020255        total: 8.83s    remaining: 2m 23s
58:     learn: 0.3011206        total: 8.97s    remaining: 2m 23s
59:     learn: 0.3003225        total: 9.1s     remaining: 2m 22s
60:     learn: 0.2994832        total: 9.25s    remaining: 2m 22s
61:     learn: 0.2986959        total: 9.37s    remaining: 2m 21s
62:     learn: 0.2978968        total: 9.52s    remaining: 2m 21s
63:     learn: 0.2970797        total: 9.65s    remaining: 2m 21s
64:     learn: 0.2963243        total: 9.79s    remaining: 2m 20s
65:     learn: 0.2956538        total: 9.92s    remaining: 2m 20s
66:     learn: 0.2949563        total: 10.1s    remaining: 2m 20s
67:     learn: 0.2943047        total: 10.2s    remaining: 2m 19s
68:     learn: 0.2936884        total: 10.3s    remaining: 2m 19s
69:     learn: 0.2930522        total: 10.5s    remaining: 2m 19s
70:     learn: 0.2924561        total: 10.6s    remaining: 2m 18s
71:     learn: 0.2918343        total: 10.7s    remaining: 2m 18s
72:     learn: 0.2912229        total: 10.9s    remaining: 2m 18s
73:     learn: 0.2906711        total: 11s      remaining: 2m 17s
74:     learn: 0.2900805        total: 11.2s    remaining: 2m 17s
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75:     learn: 0.2895378        total: 11.3s    remaining: 2m 17s
76:     learn: 0.2889894        total: 11.4s    remaining: 2m 17s
77:     learn: 0.2884719        total: 11.6s    remaining: 2m 16s
78:     learn: 0.2879759        total: 11.7s    remaining: 2m 16s
79:     learn: 0.2875302        total: 11.9s    remaining: 2m 16s
80:     learn: 0.2870407        total: 12s      remaining: 2m 16s
81:     learn: 0.2865990        total: 12.1s    remaining: 2m 15s
82:     learn: 0.2861342        total: 12.3s    remaining: 2m 15s
83:     learn: 0.2856412        total: 12.4s    remaining: 2m 15s
84:     learn: 0.2851740        total: 12.6s    remaining: 2m 15s
85:     learn: 0.2846933        total: 12.7s    remaining: 2m 15s
86:     learn: 0.2842280        total: 12.8s    remaining: 2m 14s
87:     learn: 0.2837629        total: 13s      remaining: 2m 14s
88:     learn: 0.2833221        total: 13.1s    remaining: 2m 14s
89:     learn: 0.2829149        total: 13.3s    remaining: 2m 14s
90:     learn: 0.2824660        total: 13.4s    remaining: 2m 13s
91:     learn: 0.2820394        total: 13.5s    remaining: 2m 13s
92:     learn: 0.2816137        total: 13.7s    remaining: 2m 13s
93:     learn: 0.2811839        total: 13.8s    remaining: 2m 13s
94:     learn: 0.2807696        total: 14s      remaining: 2m 13s
95:     learn: 0.2803753        total: 14.1s    remaining: 2m 12s
96:     learn: 0.2799917        total: 14.2s    remaining: 2m 12s
97:     learn: 0.2795865        total: 14.4s    remaining: 2m 12s
98:     learn: 0.2791979        total: 14.5s    remaining: 2m 12s
99:     learn: 0.2788346        total: 14.6s    remaining: 2m 11s
100:    learn: 0.2784483        total: 14.8s    remaining: 2m 11s
101:    learn: 0.2781064        total: 14.9s    remaining: 2m 11s
102:    learn: 0.2777511        total: 15.1s    remaining: 2m 11s
103:    learn: 0.2773793        total: 15.2s    remaining: 2m 11s
104:    learn: 0.2770192        total: 15.4s    remaining: 2m 10s
105:    learn: 0.2766859        total: 15.5s    remaining: 2m 10s
106:    learn: 0.2763212        total: 15.6s    remaining: 2m 10s
107:    learn: 0.2759773        total: 15.7s    remaining: 2m 10s
108:    learn: 0.2756118        total: 15.9s    remaining: 2m 9s
109:    learn: 0.2752636        total: 16s      remaining: 2m 9s
110:    learn: 0.2749093        total: 16.2s    remaining: 2m 9s
111:    learn: 0.2745693        total: 16.3s    remaining: 2m 9s
112:    learn: 0.2742319        total: 16.5s    remaining: 2m 9s
113:    learn: 0.2738794        total: 16.7s    remaining: 2m 9s
114:    learn: 0.2735649        total: 16.9s    remaining: 2m 9s
115:    learn: 0.2732293        total: 17s      remaining: 2m 9s
116:    learn: 0.2729138        total: 17.2s    remaining: 2m 9s
117:    learn: 0.2725864        total: 17.3s    remaining: 2m 9s
118:    learn: 0.2722473        total: 17.5s    remaining: 2m 9s
119:    learn: 0.2719264        total: 17.6s    remaining: 2m 9s
120:    learn: 0.2716313        total: 17.8s    remaining: 2m 9s
121:    learn: 0.2713361        total: 17.9s    remaining: 2m 8s
122:    learn: 0.2710275        total: 18s      remaining: 2m 8s
123:    learn: 0.2707229        total: 18.2s    remaining: 2m 8s
124:    learn: 0.2704266        total: 18.3s    remaining: 2m 8s
125:    learn: 0.2700901        total: 18.5s    remaining: 2m 8s
126:    learn: 0.2697823        total: 18.6s    remaining: 2m 7s
127:    learn: 0.2694983        total: 18.7s    remaining: 2m 7s
128:    learn: 0.2691828        total: 18.8s    remaining: 2m 7s
129:    learn: 0.2689315        total: 19s      remaining: 2m 6s
130:    learn: 0.2686237        total: 19.1s    remaining: 2m 6s
131:    learn: 0.2683093        total: 19.2s    remaining: 2m 6s
132:    learn: 0.2680072        total: 19.4s    remaining: 2m 6s
133:    learn: 0.2677192        total: 19.5s    remaining: 2m 6s
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134:    learn: 0.2674426        total: 19.7s    remaining: 2m 6s
135:    learn: 0.2671557        total: 19.8s    remaining: 2m 5s
136:    learn: 0.2668704        total: 19.9s    remaining: 2m 5s
137:    learn: 0.2665797        total: 20.1s    remaining: 2m 5s
138:    learn: 0.2662969        total: 20.2s    remaining: 2m 5s
139:    learn: 0.2660242        total: 20.3s    remaining: 2m 5s
140:    learn: 0.2657438        total: 20.5s    remaining: 2m 4s
141:    learn: 0.2654744        total: 20.6s    remaining: 2m 4s
142:    learn: 0.2651815        total: 20.8s    remaining: 2m 4s
143:    learn: 0.2649142        total: 20.9s    remaining: 2m 4s
144:    learn: 0.2646393        total: 21s      remaining: 2m 4s
145:    learn: 0.2643643        total: 21.2s    remaining: 2m 3s
146:    learn: 0.2641006        total: 21.3s    remaining: 2m 3s
147:    learn: 0.2638301        total: 21.4s    remaining: 2m 3s
148:    learn: 0.2635814        total: 21.6s    remaining: 2m 3s
149:    learn: 0.2633120        total: 21.7s    remaining: 2m 2s
150:    learn: 0.2630558        total: 21.8s    remaining: 2m 2s
151:    learn: 0.2628025        total: 22s      remaining: 2m 2s
152:    learn: 0.2625305        total: 22.1s    remaining: 2m 2s
153:    learn: 0.2622619        total: 22.3s    remaining: 2m 2s
154:    learn: 0.2620278        total: 22.4s    remaining: 2m 2s
155:    learn: 0.2617665        total: 22.5s    remaining: 2m 1s
156:    learn: 0.2615045        total: 22.7s    remaining: 2m 1s
157:    learn: 0.2612220        total: 22.8s    remaining: 2m 1s
158:    learn: 0.2609710        total: 22.9s    remaining: 2m 1s
159:    learn: 0.2607258        total: 23.1s    remaining: 2m 1s
160:    learn: 0.2604822        total: 23.2s    remaining: 2m
161:    learn: 0.2602536        total: 23.3s    remaining: 2m
162:    learn: 0.2600099        total: 23.5s    remaining: 2m
163:    learn: 0.2597480        total: 23.6s    remaining: 2m
164:    learn: 0.2595201        total: 23.7s    remaining: 2m
165:    learn: 0.2592812        total: 23.9s    remaining: 1m 59s
166:    learn: 0.2590331        total: 24s      remaining: 1m 59s
167:    learn: 0.2587898        total: 24.1s    remaining: 1m 59s
168:    learn: 0.2585658        total: 24.3s    remaining: 1m 59s
169:    learn: 0.2583079        total: 24.4s    remaining: 1m 59s
170:    learn: 0.2580677        total: 24.5s    remaining: 1m 58s
171:    learn: 0.2578227        total: 24.7s    remaining: 1m 58s
172:    learn: 0.2575846        total: 24.8s    remaining: 1m 58s
173:    learn: 0.2573666        total: 24.9s    remaining: 1m 58s
174:    learn: 0.2571259        total: 25.1s    remaining: 1m 58s
175:    learn: 0.2569094        total: 25.2s    remaining: 1m 57s
176:    learn: 0.2566873        total: 25.3s    remaining: 1m 57s
177:    learn: 0.2564908        total: 25.5s    remaining: 1m 57s
178:    learn: 0.2562557        total: 25.6s    remaining: 1m 57s
179:    learn: 0.2560166        total: 25.7s    remaining: 1m 57s
180:    learn: 0.2557982        total: 25.9s    remaining: 1m 56s
181:    learn: 0.2556141        total: 26s      remaining: 1m 56s
182:    learn: 0.2553661        total: 26.1s    remaining: 1m 56s
183:    learn: 0.2551496        total: 26.3s    remaining: 1m 56s
184:    learn: 0.2549096        total: 26.4s    remaining: 1m 56s
185:    learn: 0.2546798        total: 26.6s    remaining: 1m 56s
186:    learn: 0.2544216        total: 26.7s    remaining: 1m 56s
187:    learn: 0.2542046        total: 26.8s    remaining: 1m 55s
188:    learn: 0.2539923        total: 27s      remaining: 1m 55s
189:    learn: 0.2537676        total: 27.1s    remaining: 1m 55s
190:    learn: 0.2535506        total: 27.2s    remaining: 1m 55s
191:    learn: 0.2533108        total: 27.4s    remaining: 1m 55s
192:    learn: 0.2531158        total: 27.5s    remaining: 1m 54s
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193:    learn: 0.2529072        total: 27.6s    remaining: 1m 54s
194:    learn: 0.2526912        total: 27.8s    remaining: 1m 54s
195:    learn: 0.2524888        total: 27.9s    remaining: 1m 54s
196:    learn: 0.2522815        total: 28s      remaining: 1m 54s
197:    learn: 0.2520687        total: 28.2s    remaining: 1m 54s
198:    learn: 0.2518720        total: 28.3s    remaining: 1m 53s
199:    learn: 0.2516618        total: 28.4s    remaining: 1m 53s
200:    learn: 0.2514653        total: 28.6s    remaining: 1m 53s
201:    learn: 0.2512491        total: 28.7s    remaining: 1m 53s
202:    learn: 0.2510473        total: 28.8s    remaining: 1m 53s
203:    learn: 0.2508109        total: 29s      remaining: 1m 53s
204:    learn: 0.2506154        total: 29.1s    remaining: 1m 52s
205:    learn: 0.2504148        total: 29.2s    remaining: 1m 52s
206:    learn: 0.2502069        total: 29.4s    remaining: 1m 52s
207:    learn: 0.2500220        total: 29.5s    remaining: 1m 52s
208:    learn: 0.2498174        total: 29.7s    remaining: 1m 52s
209:    learn: 0.2496307        total: 29.8s    remaining: 1m 52s
210:    learn: 0.2494224        total: 29.9s    remaining: 1m 51s
211:    learn: 0.2492154        total: 30.1s    remaining: 1m 51s
212:    learn: 0.2490336        total: 30.2s    remaining: 1m 51s
213:    learn: 0.2488680        total: 30.3s    remaining: 1m 51s
214:    learn: 0.2486533        total: 30.5s    remaining: 1m 51s
215:    learn: 0.2484477        total: 30.6s    remaining: 1m 51s
216:    learn: 0.2482554        total: 30.8s    remaining: 1m 51s
217:    learn: 0.2480612        total: 30.9s    remaining: 1m 50s
218:    learn: 0.2478701        total: 31s      remaining: 1m 50s
219:    learn: 0.2476679        total: 31.2s    remaining: 1m 50s
220:    learn: 0.2474600        total: 31.3s    remaining: 1m 50s
221:    learn: 0.2472755        total: 31.4s    remaining: 1m 50s
222:    learn: 0.2470944        total: 31.6s    remaining: 1m 49s
223:    learn: 0.2469297        total: 31.7s    remaining: 1m 49s
224:    learn: 0.2467352        total: 31.8s    remaining: 1m 49s
225:    learn: 0.2465515        total: 32s      remaining: 1m 49s
226:    learn: 0.2463584        total: 32.1s    remaining: 1m 49s
227:    learn: 0.2461482        total: 32.3s    remaining: 1m 49s
228:    learn: 0.2459608        total: 32.5s    remaining: 1m 49s
229:    learn: 0.2457718        total: 32.7s    remaining: 1m 49s
230:    learn: 0.2456044        total: 32.8s    remaining: 1m 49s
231:    learn: 0.2454313        total: 33s      remaining: 1m 49s
232:    learn: 0.2452457        total: 33.2s    remaining: 1m 49s
233:    learn: 0.2450734        total: 33.3s    remaining: 1m 49s
234:    learn: 0.2449157        total: 33.4s    remaining: 1m 48s
235:    learn: 0.2447116        total: 33.6s    remaining: 1m 48s
236:    learn: 0.2445408        total: 33.7s    remaining: 1m 48s
237:    learn: 0.2443852        total: 33.8s    remaining: 1m 48s
238:    learn: 0.2442158        total: 34s      remaining: 1m 48s
239:    learn: 0.2440280        total: 34.1s    remaining: 1m 47s
240:    learn: 0.2438570        total: 34.2s    remaining: 1m 47s
241:    learn: 0.2436741        total: 34.4s    remaining: 1m 47s
242:    learn: 0.2434941        total: 34.5s    remaining: 1m 47s
243:    learn: 0.2432722        total: 34.6s    remaining: 1m 47s
244:    learn: 0.2430775        total: 34.8s    remaining: 1m 47s
245:    learn: 0.2429183        total: 34.9s    remaining: 1m 47s
246:    learn: 0.2427464        total: 35.1s    remaining: 1m 46s
247:    learn: 0.2425903        total: 35.2s    remaining: 1m 46s
248:    learn: 0.2424401        total: 35.3s    remaining: 1m 46s
249:    learn: 0.2422746        total: 35.4s    remaining: 1m 46s
250:    learn: 0.2420871        total: 35.6s    remaining: 1m 46s
251:    learn: 0.2419127        total: 35.7s    remaining: 1m 45s
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252:    learn: 0.2417469        total: 35.8s    remaining: 1m 45s
253:    learn: 0.2415985        total: 36s      remaining: 1m 45s
254:    learn: 0.2414253        total: 36.1s    remaining: 1m 45s
255:    learn: 0.2412671        total: 36.3s    remaining: 1m 45s
256:    learn: 0.2410860        total: 36.4s    remaining: 1m 45s
257:    learn: 0.2409205        total: 36.5s    remaining: 1m 45s
258:    learn: 0.2407425        total: 36.7s    remaining: 1m 44s
259:    learn: 0.2405927        total: 36.8s    remaining: 1m 44s
260:    learn: 0.2404286        total: 37s      remaining: 1m 44s
261:    learn: 0.2402634        total: 37.1s    remaining: 1m 44s
262:    learn: 0.2401124        total: 37.2s    remaining: 1m 44s
263:    learn: 0.2399604        total: 37.4s    remaining: 1m 44s
264:    learn: 0.2397933        total: 37.5s    remaining: 1m 44s
265:    learn: 0.2396638        total: 37.6s    remaining: 1m 43s
266:    learn: 0.2394902        total: 37.8s    remaining: 1m 43s
267:    learn: 0.2393180        total: 37.9s    remaining: 1m 43s
268:    learn: 0.2391459        total: 38.1s    remaining: 1m 43s
269:    learn: 0.2389704        total: 38.2s    remaining: 1m 43s
270:    learn: 0.2388068        total: 38.3s    remaining: 1m 43s
271:    learn: 0.2386465        total: 38.5s    remaining: 1m 42s
272:    learn: 0.2384626        total: 38.6s    remaining: 1m 42s
273:    learn: 0.2383169        total: 38.7s    remaining: 1m 42s
274:    learn: 0.2381618        total: 38.9s    remaining: 1m 42s
275:    learn: 0.2380039        total: 39s      remaining: 1m 42s
276:    learn: 0.2378439        total: 39.1s    remaining: 1m 42s
277:    learn: 0.2376928        total: 39.3s    remaining: 1m 42s
278:    learn: 0.2375149        total: 39.4s    remaining: 1m 41s
279:    learn: 0.2373620        total: 39.5s    remaining: 1m 41s
280:    learn: 0.2372040        total: 39.7s    remaining: 1m 41s
281:    learn: 0.2370306        total: 39.8s    remaining: 1m 41s
282:    learn: 0.2368530        total: 40s      remaining: 1m 41s
283:    learn: 0.2367002        total: 40.1s    remaining: 1m 41s
284:    learn: 0.2365722        total: 40.3s    remaining: 1m 40s
285:    learn: 0.2364168        total: 40.4s    remaining: 1m 40s
286:    learn: 0.2362446        total: 40.5s    remaining: 1m 40s
287:    learn: 0.2360846        total: 40.7s    remaining: 1m 40s
288:    learn: 0.2359153        total: 40.8s    remaining: 1m 40s
289:    learn: 0.2357645        total: 41s      remaining: 1m 40s
290:    learn: 0.2356113        total: 41.1s    remaining: 1m 40s
291:    learn: 0.2354715        total: 41.2s    remaining: 1m 39s
292:    learn: 0.2353238        total: 41.4s    remaining: 1m 39s
293:    learn: 0.2351748        total: 41.5s    remaining: 1m 39s
294:    learn: 0.2350215        total: 41.6s    remaining: 1m 39s
295:    learn: 0.2348688        total: 41.8s    remaining: 1m 39s
296:    learn: 0.2347111        total: 41.9s    remaining: 1m 39s
297:    learn: 0.2345428        total: 42.1s    remaining: 1m 39s
298:    learn: 0.2343829        total: 42.2s    remaining: 1m 38s
299:    learn: 0.2342442        total: 42.3s    remaining: 1m 38s
300:    learn: 0.2340698        total: 42.5s    remaining: 1m 38s
301:    learn: 0.2339224        total: 42.6s    remaining: 1m 38s
302:    learn: 0.2337652        total: 42.8s    remaining: 1m 38s
303:    learn: 0.2336259        total: 42.9s    remaining: 1m 38s
304:    learn: 0.2334726        total: 43.1s    remaining: 1m 38s
305:    learn: 0.2333155        total: 43.2s    remaining: 1m 38s
306:    learn: 0.2331773        total: 43.3s    remaining: 1m 37s
307:    learn: 0.2330275        total: 43.5s    remaining: 1m 37s
308:    learn: 0.2328829        total: 43.6s    remaining: 1m 37s
309:    learn: 0.2327296        total: 43.8s    remaining: 1m 37s
310:    learn: 0.2326020        total: 43.9s    remaining: 1m 37s
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311:    learn: 0.2324363        total: 44s      remaining: 1m 37s
312:    learn: 0.2322919        total: 44.2s    remaining: 1m 36s
313:    learn: 0.2321542        total: 44.3s    remaining: 1m 36s
314:    learn: 0.2320092        total: 44.4s    remaining: 1m 36s
315:    learn: 0.2318757        total: 44.6s    remaining: 1m 36s
316:    learn: 0.2317365        total: 44.7s    remaining: 1m 36s
317:    learn: 0.2315954        total: 44.9s    remaining: 1m 36s
318:    learn: 0.2314532        total: 45s      remaining: 1m 36s
319:    learn: 0.2313118        total: 45.1s    remaining: 1m 35s
320:    learn: 0.2311518        total: 45.3s    remaining: 1m 35s
321:    learn: 0.2310077        total: 45.4s    remaining: 1m 35s
322:    learn: 0.2308536        total: 45.5s    remaining: 1m 35s
323:    learn: 0.2307153        total: 45.7s    remaining: 1m 35s
324:    learn: 0.2305939        total: 45.8s    remaining: 1m 35s
325:    learn: 0.2304542        total: 45.9s    remaining: 1m 34s
326:    learn: 0.2302982        total: 46.1s    remaining: 1m 34s
327:    learn: 0.2301573        total: 46.2s    remaining: 1m 34s
328:    learn: 0.2300298        total: 46.4s    remaining: 1m 34s
329:    learn: 0.2299040        total: 46.5s    remaining: 1m 34s
330:    learn: 0.2297560        total: 46.6s    remaining: 1m 34s
331:    learn: 0.2296067        total: 46.8s    remaining: 1m 34s
332:    learn: 0.2294828        total: 46.9s    remaining: 1m 33s
333:    learn: 0.2293505        total: 47.1s    remaining: 1m 33s
334:    learn: 0.2292094        total: 47.2s    remaining: 1m 33s
335:    learn: 0.2290732        total: 47.3s    remaining: 1m 33s
336:    learn: 0.2289267        total: 47.5s    remaining: 1m 33s
337:    learn: 0.2287978        total: 47.6s    remaining: 1m 33s
338:    learn: 0.2286669        total: 47.7s    remaining: 1m 33s
339:    learn: 0.2285435        total: 47.9s    remaining: 1m 32s
340:    learn: 0.2284133        total: 48s      remaining: 1m 32s
341:    learn: 0.2282938        total: 48.2s    remaining: 1m 32s
342:    learn: 0.2281535        total: 48.4s    remaining: 1m 32s
343:    learn: 0.2280185        total: 48.5s    remaining: 1m 32s
344:    learn: 0.2278924        total: 48.7s    remaining: 1m 32s
345:    learn: 0.2277616        total: 48.9s    remaining: 1m 32s
346:    learn: 0.2276194        total: 49s      remaining: 1m 32s
347:    learn: 0.2274827        total: 49.2s    remaining: 1m 32s
348:    learn: 0.2273491        total: 49.4s    remaining: 1m 32s
349:    learn: 0.2272150        total: 49.5s    remaining: 1m 31s
350:    learn: 0.2270947        total: 49.6s    remaining: 1m 31s
351:    learn: 0.2269658        total: 49.8s    remaining: 1m 31s
352:    learn: 0.2268342        total: 49.9s    remaining: 1m 31s
353:    learn: 0.2267105        total: 50s      remaining: 1m 31s
354:    learn: 0.2265747        total: 50.2s    remaining: 1m 31s
355:    learn: 0.2264383        total: 50.3s    remaining: 1m 30s
356:    learn: 0.2262847        total: 50.4s    remaining: 1m 30s
357:    learn: 0.2261458        total: 50.6s    remaining: 1m 30s
358:    learn: 0.2260164        total: 50.7s    remaining: 1m 30s
359:    learn: 0.2258978        total: 50.9s    remaining: 1m 30s
360:    learn: 0.2257661        total: 51s      remaining: 1m 30s
361:    learn: 0.2256276        total: 51.1s    remaining: 1m 30s
362:    learn: 0.2254912        total: 51.3s    remaining: 1m 29s
363:    learn: 0.2253723        total: 51.4s    remaining: 1m 29s
364:    learn: 0.2252444        total: 51.5s    remaining: 1m 29s
365:    learn: 0.2251277        total: 51.7s    remaining: 1m 29s
366:    learn: 0.2250033        total: 51.8s    remaining: 1m 29s
367:    learn: 0.2248641        total: 51.9s    remaining: 1m 29s
368:    learn: 0.2247388        total: 52.1s    remaining: 1m 29s
369:    learn: 0.2246241        total: 52.2s    remaining: 1m 28s
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370:    learn: 0.2245034        total: 52.4s    remaining: 1m 28s
371:    learn: 0.2243719        total: 52.5s    remaining: 1m 28s
372:    learn: 0.2242491        total: 52.6s    remaining: 1m 28s
373:    learn: 0.2241138        total: 52.8s    remaining: 1m 28s
374:    learn: 0.2239913        total: 52.9s    remaining: 1m 28s
375:    learn: 0.2238494        total: 53.1s    remaining: 1m 28s
376:    learn: 0.2237304        total: 53.2s    remaining: 1m 27s
377:    learn: 0.2235985        total: 53.3s    remaining: 1m 27s
378:    learn: 0.2234853        total: 53.5s    remaining: 1m 27s
379:    learn: 0.2233725        total: 53.6s    remaining: 1m 27s
380:    learn: 0.2232570        total: 53.7s    remaining: 1m 27s
381:    learn: 0.2231396        total: 53.9s    remaining: 1m 27s
382:    learn: 0.2229974        total: 54s      remaining: 1m 27s
383:    learn: 0.2228714        total: 54.2s    remaining: 1m 26s
384:    learn: 0.2227432        total: 54.3s    remaining: 1m 26s
385:    learn: 0.2226246        total: 54.4s    remaining: 1m 26s
386:    learn: 0.2225029        total: 54.6s    remaining: 1m 26s
387:    learn: 0.2223923        total: 54.7s    remaining: 1m 26s
388:    learn: 0.2222779        total: 54.8s    remaining: 1m 26s
389:    learn: 0.2221353        total: 55s      remaining: 1m 25s
390:    learn: 0.2220149        total: 55.1s    remaining: 1m 25s
391:    learn: 0.2218880        total: 55.2s    remaining: 1m 25s
392:    learn: 0.2217752        total: 55.4s    remaining: 1m 25s
393:    learn: 0.2216547        total: 55.5s    remaining: 1m 25s
394:    learn: 0.2215306        total: 55.7s    remaining: 1m 25s
395:    learn: 0.2214160        total: 55.8s    remaining: 1m 25s
396:    learn: 0.2212861        total: 55.9s    remaining: 1m 24s
397:    learn: 0.2211733        total: 56.1s    remaining: 1m 24s
398:    learn: 0.2210344        total: 56.2s    remaining: 1m 24s
399:    learn: 0.2209188        total: 56.3s    remaining: 1m 24s
400:    learn: 0.2208025        total: 56.5s    remaining: 1m 24s
401:    learn: 0.2206941        total: 56.6s    remaining: 1m 24s
402:    learn: 0.2205900        total: 56.7s    remaining: 1m 24s
403:    learn: 0.2204602        total: 56.9s    remaining: 1m 23s
404:    learn: 0.2203410        total: 57s      remaining: 1m 23s
405:    learn: 0.2202195        total: 57.1s    remaining: 1m 23s
406:    learn: 0.2201146        total: 57.3s    remaining: 1m 23s
407:    learn: 0.2199970        total: 57.4s    remaining: 1m 23s
408:    learn: 0.2198823        total: 57.5s    remaining: 1m 23s
409:    learn: 0.2197663        total: 57.7s    remaining: 1m 22s
410:    learn: 0.2196530        total: 57.8s    remaining: 1m 22s
411:    learn: 0.2195340        total: 57.9s    remaining: 1m 22s
412:    learn: 0.2194014        total: 58.1s    remaining: 1m 22s
413:    learn: 0.2192723        total: 58.2s    remaining: 1m 22s
414:    learn: 0.2191414        total: 58.4s    remaining: 1m 22s
415:    learn: 0.2190133        total: 58.5s    remaining: 1m 22s
416:    learn: 0.2188984        total: 58.6s    remaining: 1m 21s
417:    learn: 0.2187784        total: 58.8s    remaining: 1m 21s
418:    learn: 0.2186597        total: 58.9s    remaining: 1m 21s
419:    learn: 0.2185338        total: 59.1s    remaining: 1m 21s
420:    learn: 0.2184158        total: 59.2s    remaining: 1m 21s
421:    learn: 0.2183102        total: 59.3s    remaining: 1m 21s
422:    learn: 0.2181869        total: 59.5s    remaining: 1m 21s
423:    learn: 0.2180583        total: 59.6s    remaining: 1m 20s
424:    learn: 0.2179343        total: 59.7s    remaining: 1m 20s
425:    learn: 0.2178194        total: 59.9s    remaining: 1m 20s
426:    learn: 0.2176961        total: 1m       remaining: 1m 20s
427:    learn: 0.2175947        total: 1m       remaining: 1m 20s
428:    learn: 0.2174765        total: 1m       remaining: 1m 20s
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429:    learn: 0.2173761        total: 1m       remaining: 1m 20s
430:    learn: 0.2172471        total: 1m       remaining: 1m 19s
431:    learn: 0.2171359        total: 1m       remaining: 1m 19s
432:    learn: 0.2170299        total: 1m       remaining: 1m 19s
433:    learn: 0.2169169        total: 1m       remaining: 1m 19s
434:    learn: 0.2168063        total: 1m 1s    remaining: 1m 19s
435:    learn: 0.2166901        total: 1m 1s    remaining: 1m 19s
436:    learn: 0.2165680        total: 1m 1s    remaining: 1m 19s
437:    learn: 0.2164548        total: 1m 1s    remaining: 1m 18s
438:    learn: 0.2163251        total: 1m 1s    remaining: 1m 18s
439:    learn: 0.2162129        total: 1m 1s    remaining: 1m 18s
440:    learn: 0.2160932        total: 1m 1s    remaining: 1m 18s
441:    learn: 0.2159859        total: 1m 2s    remaining: 1m 18s
442:    learn: 0.2158714        total: 1m 2s    remaining: 1m 18s
443:    learn: 0.2157472        total: 1m 2s    remaining: 1m 18s
444:    learn: 0.2156370        total: 1m 2s    remaining: 1m 17s
445:    learn: 0.2155253        total: 1m 2s    remaining: 1m 17s
446:    learn: 0.2154146        total: 1m 2s    remaining: 1m 17s
447:    learn: 0.2152993        total: 1m 2s    remaining: 1m 17s
448:    learn: 0.2151683        total: 1m 3s    remaining: 1m 17s
449:    learn: 0.2150527        total: 1m 3s    remaining: 1m 17s
450:    learn: 0.2149432        total: 1m 3s    remaining: 1m 17s
451:    learn: 0.2148435        total: 1m 3s    remaining: 1m 16s
452:    learn: 0.2147378        total: 1m 3s    remaining: 1m 16s
453:    learn: 0.2146193        total: 1m 3s    remaining: 1m 16s
454:    learn: 0.2144855        total: 1m 3s    remaining: 1m 16s
455:    learn: 0.2143745        total: 1m 4s    remaining: 1m 16s
456:    learn: 0.2142767        total: 1m 4s    remaining: 1m 16s
457:    learn: 0.2141642        total: 1m 4s    remaining: 1m 16s
458:    learn: 0.2140520        total: 1m 4s    remaining: 1m 16s
459:    learn: 0.2139344        total: 1m 4s    remaining: 1m 16s
460:    learn: 0.2138291        total: 1m 4s    remaining: 1m 15s
461:    learn: 0.2137218        total: 1m 5s    remaining: 1m 15s
462:    learn: 0.2135943        total: 1m 5s    remaining: 1m 15s
463:    learn: 0.2134825        total: 1m 5s    remaining: 1m 15s
464:    learn: 0.2133696        total: 1m 5s    remaining: 1m 15s
465:    learn: 0.2132613        total: 1m 5s    remaining: 1m 15s
466:    learn: 0.2131485        total: 1m 5s    remaining: 1m 15s
467:    learn: 0.2130370        total: 1m 5s    remaining: 1m 14s
468:    learn: 0.2129433        total: 1m 6s    remaining: 1m 14s
469:    learn: 0.2128533        total: 1m 6s    remaining: 1m 14s
470:    learn: 0.2127458        total: 1m 6s    remaining: 1m 14s
471:    learn: 0.2126402        total: 1m 6s    remaining: 1m 14s
472:    learn: 0.2125367        total: 1m 6s    remaining: 1m 14s
473:    learn: 0.2124237        total: 1m 6s    remaining: 1m 14s
474:    learn: 0.2123235        total: 1m 6s    remaining: 1m 13s
475:    learn: 0.2121950        total: 1m 7s    remaining: 1m 13s
476:    learn: 0.2120898        total: 1m 7s    remaining: 1m 13s
477:    learn: 0.2119836        total: 1m 7s    remaining: 1m 13s
478:    learn: 0.2118772        total: 1m 7s    remaining: 1m 13s
479:    learn: 0.2117809        total: 1m 7s    remaining: 1m 13s
480:    learn: 0.2116863        total: 1m 7s    remaining: 1m 13s
481:    learn: 0.2115853        total: 1m 7s    remaining: 1m 12s
482:    learn: 0.2114731        total: 1m 8s    remaining: 1m 12s
483:    learn: 0.2113636        total: 1m 8s    remaining: 1m 12s
484:    learn: 0.2112589        total: 1m 8s    remaining: 1m 12s
485:    learn: 0.2111732        total: 1m 8s    remaining: 1m 12s
486:    learn: 0.2110662        total: 1m 8s    remaining: 1m 12s
487:    learn: 0.2109724        total: 1m 8s    remaining: 1m 12s
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488:    learn: 0.2108712        total: 1m 8s    remaining: 1m 11s
489:    learn: 0.2107671        total: 1m 8s    remaining: 1m 11s
490:    learn: 0.2106413        total: 1m 9s    remaining: 1m 11s
491:    learn: 0.2105395        total: 1m 9s    remaining: 1m 11s
492:    learn: 0.2104354        total: 1m 9s    remaining: 1m 11s
493:    learn: 0.2103254        total: 1m 9s    remaining: 1m 11s
494:    learn: 0.2102164        total: 1m 9s    remaining: 1m 11s
495:    learn: 0.2101232        total: 1m 9s    remaining: 1m 10s
496:    learn: 0.2100278        total: 1m 9s    remaining: 1m 10s
497:    learn: 0.2099329        total: 1m 10s   remaining: 1m 10s
498:    learn: 0.2098237        total: 1m 10s   remaining: 1m 10s
499:    learn: 0.2097210        total: 1m 10s   remaining: 1m 10s
500:    learn: 0.2096133        total: 1m 10s   remaining: 1m 10s
501:    learn: 0.2095128        total: 1m 10s   remaining: 1m 10s
502:    learn: 0.2094057        total: 1m 10s   remaining: 1m 9s
503:    learn: 0.2092962        total: 1m 10s   remaining: 1m 9s
504:    learn: 0.2091916        total: 1m 11s   remaining: 1m 9s
505:    learn: 0.2091020        total: 1m 11s   remaining: 1m 9s
506:    learn: 0.2090024        total: 1m 11s   remaining: 1m 9s
507:    learn: 0.2088992        total: 1m 11s   remaining: 1m 9s
508:    learn: 0.2088038        total: 1m 11s   remaining: 1m 9s
509:    learn: 0.2087124        total: 1m 11s   remaining: 1m 8s
510:    learn: 0.2086184        total: 1m 11s   remaining: 1m 8s
511:    learn: 0.2085151        total: 1m 12s   remaining: 1m 8s
512:    learn: 0.2084192        total: 1m 12s   remaining: 1m 8s
513:    learn: 0.2083324        total: 1m 12s   remaining: 1m 8s
514:    learn: 0.2082193        total: 1m 12s   remaining: 1m 8s
515:    learn: 0.2081284        total: 1m 12s   remaining: 1m 8s
516:    learn: 0.2080221        total: 1m 12s   remaining: 1m 8s
517:    learn: 0.2079189        total: 1m 12s   remaining: 1m 7s
518:    learn: 0.2078175        total: 1m 13s   remaining: 1m 7s
519:    learn: 0.2077053        total: 1m 13s   remaining: 1m 7s
520:    learn: 0.2075968        total: 1m 13s   remaining: 1m 7s
521:    learn: 0.2074939        total: 1m 13s   remaining: 1m 7s
522:    learn: 0.2073823        total: 1m 13s   remaining: 1m 7s
523:    learn: 0.2072877        total: 1m 13s   remaining: 1m 7s
524:    learn: 0.2071923        total: 1m 13s   remaining: 1m 6s
525:    learn: 0.2070973        total: 1m 14s   remaining: 1m 6s
526:    learn: 0.2069924        total: 1m 14s   remaining: 1m 6s
527:    learn: 0.2068998        total: 1m 14s   remaining: 1m 6s
528:    learn: 0.2068008        total: 1m 14s   remaining: 1m 6s
529:    learn: 0.2067052        total: 1m 14s   remaining: 1m 6s
530:    learn: 0.2066040        total: 1m 14s   remaining: 1m 6s
531:    learn: 0.2065158        total: 1m 14s   remaining: 1m 5s
532:    learn: 0.2064312        total: 1m 15s   remaining: 1m 5s
533:    learn: 0.2063262        total: 1m 15s   remaining: 1m 5s
534:    learn: 0.2062297        total: 1m 15s   remaining: 1m 5s
535:    learn: 0.2061300        total: 1m 15s   remaining: 1m 5s
536:    learn: 0.2060172        total: 1m 15s   remaining: 1m 5s
537:    learn: 0.2059037        total: 1m 15s   remaining: 1m 5s
538:    learn: 0.2058170        total: 1m 15s   remaining: 1m 4s
539:    learn: 0.2057158        total: 1m 15s   remaining: 1m 4s
540:    learn: 0.2056191        total: 1m 16s   remaining: 1m 4s
541:    learn: 0.2055340        total: 1m 16s   remaining: 1m 4s
542:    learn: 0.2054488        total: 1m 16s   remaining: 1m 4s
543:    learn: 0.2053537        total: 1m 16s   remaining: 1m 4s
544:    learn: 0.2052422        total: 1m 16s   remaining: 1m 4s
545:    learn: 0.2051537        total: 1m 16s   remaining: 1m 3s
546:    learn: 0.2050675        total: 1m 16s   remaining: 1m 3s
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547:    learn: 0.2049722        total: 1m 17s   remaining: 1m 3s
548:    learn: 0.2048877        total: 1m 17s   remaining: 1m 3s
549:    learn: 0.2047897        total: 1m 17s   remaining: 1m 3s
550:    learn: 0.2046803        total: 1m 17s   remaining: 1m 3s
551:    learn: 0.2045780        total: 1m 17s   remaining: 1m 3s
552:    learn: 0.2044759        total: 1m 17s   remaining: 1m 2s
553:    learn: 0.2043686        total: 1m 17s   remaining: 1m 2s
554:    learn: 0.2042708        total: 1m 18s   remaining: 1m 2s
555:    learn: 0.2041857        total: 1m 18s   remaining: 1m 2s
556:    learn: 0.2041026        total: 1m 18s   remaining: 1m 2s
557:    learn: 0.2040026        total: 1m 18s   remaining: 1m 2s
558:    learn: 0.2038998        total: 1m 18s   remaining: 1m 2s
559:    learn: 0.2038109        total: 1m 18s   remaining: 1m 1s
560:    learn: 0.2037108        total: 1m 18s   remaining: 1m 1s
561:    learn: 0.2036074        total: 1m 19s   remaining: 1m 1s
562:    learn: 0.2035062        total: 1m 19s   remaining: 1m 1s
563:    learn: 0.2034073        total: 1m 19s   remaining: 1m 1s
564:    learn: 0.2033197        total: 1m 19s   remaining: 1m 1s
565:    learn: 0.2032318        total: 1m 19s   remaining: 1m 1s
566:    learn: 0.2031487        total: 1m 19s   remaining: 1m
567:    learn: 0.2030619        total: 1m 19s   remaining: 1m
568:    learn: 0.2029923        total: 1m 20s   remaining: 1m
569:    learn: 0.2029044        total: 1m 20s   remaining: 1m
570:    learn: 0.2028016        total: 1m 20s   remaining: 1m
571:    learn: 0.2027111        total: 1m 20s   remaining: 1m
572:    learn: 0.2026054        total: 1m 20s   remaining: 1m
573:    learn: 0.2025071        total: 1m 20s   remaining: 1m
574:    learn: 0.2024063        total: 1m 21s   remaining: 60s
575:    learn: 0.2023051        total: 1m 21s   remaining: 59.8s
576:    learn: 0.2022116        total: 1m 21s   remaining: 59.7s
577:    learn: 0.2021115        total: 1m 21s   remaining: 59.5s
578:    learn: 0.2020059        total: 1m 21s   remaining: 59.4s
579:    learn: 0.2019051        total: 1m 21s   remaining: 59.3s
580:    learn: 0.2018235        total: 1m 21s   remaining: 59.1s
581:    learn: 0.2017382        total: 1m 22s   remaining: 59s
582:    learn: 0.2016563        total: 1m 22s   remaining: 58.8s
583:    learn: 0.2015872        total: 1m 22s   remaining: 58.7s
584:    learn: 0.2015086        total: 1m 22s   remaining: 58.6s
585:    learn: 0.2014265        total: 1m 22s   remaining: 58.4s
586:    learn: 0.2013306        total: 1m 22s   remaining: 58.3s
587:    learn: 0.2012375        total: 1m 22s   remaining: 58.1s
588:    learn: 0.2011485        total: 1m 23s   remaining: 58s
589:    learn: 0.2010614        total: 1m 23s   remaining: 57.8s
590:    learn: 0.2009717        total: 1m 23s   remaining: 57.7s
591:    learn: 0.2008775        total: 1m 23s   remaining: 57.6s
592:    learn: 0.2007789        total: 1m 23s   remaining: 57.4s
593:    learn: 0.2006989        total: 1m 23s   remaining: 57.3s
594:    learn: 0.2006064        total: 1m 23s   remaining: 57.1s
595:    learn: 0.2005216        total: 1m 24s   remaining: 57s
596:    learn: 0.2004436        total: 1m 24s   remaining: 56.8s
597:    learn: 0.2003573        total: 1m 24s   remaining: 56.7s
598:    learn: 0.2002620        total: 1m 24s   remaining: 56.6s
599:    learn: 0.2001668        total: 1m 24s   remaining: 56.4s
600:    learn: 0.2000763        total: 1m 24s   remaining: 56.3s
601:    learn: 0.1999793        total: 1m 24s   remaining: 56.1s
602:    learn: 0.1998872        total: 1m 25s   remaining: 56s
603:    learn: 0.1997854        total: 1m 25s   remaining: 55.9s
604:    learn: 0.1996916        total: 1m 25s   remaining: 55.7s
605:    learn: 0.1995997        total: 1m 25s   remaining: 55.6s
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606:    learn: 0.1994915        total: 1m 25s   remaining: 55.5s
607:    learn: 0.1994054        total: 1m 25s   remaining: 55.3s
608:    learn: 0.1993119        total: 1m 25s   remaining: 55.2s
609:    learn: 0.1992424        total: 1m 26s   remaining: 55s
610:    learn: 0.1991677        total: 1m 26s   remaining: 54.9s
611:    learn: 0.1990822        total: 1m 26s   remaining: 54.8s
612:    learn: 0.1990077        total: 1m 26s   remaining: 54.6s
613:    learn: 0.1989058        total: 1m 26s   remaining: 54.5s
614:    learn: 0.1988234        total: 1m 26s   remaining: 54.3s
615:    learn: 0.1987201        total: 1m 26s   remaining: 54.2s
616:    learn: 0.1986243        total: 1m 27s   remaining: 54.1s
617:    learn: 0.1985239        total: 1m 27s   remaining: 53.9s
618:    learn: 0.1984259        total: 1m 27s   remaining: 53.8s
619:    learn: 0.1983577        total: 1m 27s   remaining: 53.6s
620:    learn: 0.1982864        total: 1m 27s   remaining: 53.5s
621:    learn: 0.1982028        total: 1m 27s   remaining: 53.3s
622:    learn: 0.1981123        total: 1m 27s   remaining: 53.2s
623:    learn: 0.1980155        total: 1m 28s   remaining: 53.1s
624:    learn: 0.1979346        total: 1m 28s   remaining: 52.9s
625:    learn: 0.1978305        total: 1m 28s   remaining: 52.8s
626:    learn: 0.1977388        total: 1m 28s   remaining: 52.6s
627:    learn: 0.1976372        total: 1m 28s   remaining: 52.5s
628:    learn: 0.1975654        total: 1m 28s   remaining: 52.4s
629:    learn: 0.1974799        total: 1m 28s   remaining: 52.2s
630:    learn: 0.1973814        total: 1m 29s   remaining: 52.1s
631:    learn: 0.1972885        total: 1m 29s   remaining: 52s
632:    learn: 0.1972138        total: 1m 29s   remaining: 51.8s
633:    learn: 0.1971174        total: 1m 29s   remaining: 51.7s
634:    learn: 0.1970284        total: 1m 29s   remaining: 51.5s
635:    learn: 0.1969570        total: 1m 29s   remaining: 51.4s
636:    learn: 0.1968746        total: 1m 29s   remaining: 51.3s
637:    learn: 0.1967846        total: 1m 30s   remaining: 51.1s
638:    learn: 0.1967079        total: 1m 30s   remaining: 51s
639:    learn: 0.1966256        total: 1m 30s   remaining: 50.8s
640:    learn: 0.1965579        total: 1m 30s   remaining: 50.7s
641:    learn: 0.1964747        total: 1m 30s   remaining: 50.6s
642:    learn: 0.1963986        total: 1m 30s   remaining: 50.4s
643:    learn: 0.1963041        total: 1m 30s   remaining: 50.3s
644:    learn: 0.1962267        total: 1m 31s   remaining: 50.1s
645:    learn: 0.1961300        total: 1m 31s   remaining: 50s
646:    learn: 0.1960449        total: 1m 31s   remaining: 49.9s
647:    learn: 0.1959645        total: 1m 31s   remaining: 49.7s
648:    learn: 0.1958966        total: 1m 31s   remaining: 49.6s
649:    learn: 0.1957900        total: 1m 31s   remaining: 49.4s
650:    learn: 0.1956992        total: 1m 31s   remaining: 49.3s
651:    learn: 0.1956156        total: 1m 32s   remaining: 49.2s
652:    learn: 0.1955348        total: 1m 32s   remaining: 49s
653:    learn: 0.1954449        total: 1m 32s   remaining: 48.9s
654:    learn: 0.1953642        total: 1m 32s   remaining: 48.8s
655:    learn: 0.1952852        total: 1m 32s   remaining: 48.6s
656:    learn: 0.1952175        total: 1m 32s   remaining: 48.5s
657:    learn: 0.1951344        total: 1m 33s   remaining: 48.3s
658:    learn: 0.1950520        total: 1m 33s   remaining: 48.2s
659:    learn: 0.1949660        total: 1m 33s   remaining: 48.1s
660:    learn: 0.1948782        total: 1m 33s   remaining: 47.9s
661:    learn: 0.1947843        total: 1m 33s   remaining: 47.8s
662:    learn: 0.1946968        total: 1m 33s   remaining: 47.6s
663:    learn: 0.1946304        total: 1m 33s   remaining: 47.5s
664:    learn: 0.1945446        total: 1m 34s   remaining: 47.4s
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665:    learn: 0.1944595        total: 1m 34s   remaining: 47.2s
666:    learn: 0.1943921        total: 1m 34s   remaining: 47.1s
667:    learn: 0.1943055        total: 1m 34s   remaining: 46.9s
668:    learn: 0.1942056        total: 1m 34s   remaining: 46.8s
669:    learn: 0.1941272        total: 1m 34s   remaining: 46.7s
670:    learn: 0.1940461        total: 1m 34s   remaining: 46.5s
671:    learn: 0.1939688        total: 1m 35s   remaining: 46.4s
672:    learn: 0.1938845        total: 1m 35s   remaining: 46.2s
673:    learn: 0.1938083        total: 1m 35s   remaining: 46.1s
674:    learn: 0.1937290        total: 1m 35s   remaining: 45.9s
675:    learn: 0.1936512        total: 1m 35s   remaining: 45.8s
676:    learn: 0.1935712        total: 1m 35s   remaining: 45.7s
677:    learn: 0.1934942        total: 1m 35s   remaining: 45.5s
678:    learn: 0.1934230        total: 1m 36s   remaining: 45.4s
679:    learn: 0.1933399        total: 1m 36s   remaining: 45.3s
680:    learn: 0.1932570        total: 1m 36s   remaining: 45.2s
681:    learn: 0.1931782        total: 1m 36s   remaining: 45.1s
682:    learn: 0.1930869        total: 1m 36s   remaining: 44.9s
683:    learn: 0.1930127        total: 1m 36s   remaining: 44.8s
684:    learn: 0.1929413        total: 1m 37s   remaining: 44.7s
685:    learn: 0.1928619        total: 1m 37s   remaining: 44.5s
686:    learn: 0.1927701        total: 1m 37s   remaining: 44.4s
687:    learn: 0.1926856        total: 1m 37s   remaining: 44.2s
688:    learn: 0.1926081        total: 1m 37s   remaining: 44.1s
689:    learn: 0.1925230        total: 1m 37s   remaining: 44s
690:    learn: 0.1924437        total: 1m 37s   remaining: 43.8s
691:    learn: 0.1923644        total: 1m 38s   remaining: 43.7s
692:    learn: 0.1922797        total: 1m 38s   remaining: 43.5s
693:    learn: 0.1921857        total: 1m 38s   remaining: 43.4s
694:    learn: 0.1921100        total: 1m 38s   remaining: 43.3s
695:    learn: 0.1920415        total: 1m 38s   remaining: 43.1s
696:    learn: 0.1919656        total: 1m 38s   remaining: 43s
697:    learn: 0.1918858        total: 1m 39s   remaining: 42.8s
698:    learn: 0.1918059        total: 1m 39s   remaining: 42.7s
699:    learn: 0.1917354        total: 1m 39s   remaining: 42.6s
700:    learn: 0.1916612        total: 1m 39s   remaining: 42.4s
701:    learn: 0.1916014        total: 1m 39s   remaining: 42.3s
702:    learn: 0.1915248        total: 1m 39s   remaining: 42.1s
703:    learn: 0.1914435        total: 1m 39s   remaining: 42s
704:    learn: 0.1913595        total: 1m 39s   remaining: 41.8s
705:    learn: 0.1912786        total: 1m 40s   remaining: 41.7s
706:    learn: 0.1912015        total: 1m 40s   remaining: 41.5s
707:    learn: 0.1911182        total: 1m 40s   remaining: 41.4s
708:    learn: 0.1910379        total: 1m 40s   remaining: 41.3s
709:    learn: 0.1909454        total: 1m 40s   remaining: 41.1s
710:    learn: 0.1908585        total: 1m 40s   remaining: 41s
711:    learn: 0.1907665        total: 1m 40s   remaining: 40.8s
712:    learn: 0.1906780        total: 1m 41s   remaining: 40.7s
713:    learn: 0.1906138        total: 1m 41s   remaining: 40.5s
714:    learn: 0.1905287        total: 1m 41s   remaining: 40.4s
715:    learn: 0.1904626        total: 1m 41s   remaining: 40.2s
716:    learn: 0.1903790        total: 1m 41s   remaining: 40.1s
717:    learn: 0.1903084        total: 1m 41s   remaining: 40s
718:    learn: 0.1902262        total: 1m 41s   remaining: 39.8s
719:    learn: 0.1901526        total: 1m 42s   remaining: 39.7s
720:    learn: 0.1900734        total: 1m 42s   remaining: 39.5s
721:    learn: 0.1899959        total: 1m 42s   remaining: 39.4s
722:    learn: 0.1899149        total: 1m 42s   remaining: 39.2s
723:    learn: 0.1898332        total: 1m 42s   remaining: 39.1s
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724:    learn: 0.1897590        total: 1m 42s   remaining: 39s
725:    learn: 0.1896792        total: 1m 42s   remaining: 38.8s
726:    learn: 0.1896009        total: 1m 43s   remaining: 38.7s
727:    learn: 0.1895290        total: 1m 43s   remaining: 38.5s
728:    learn: 0.1894525        total: 1m 43s   remaining: 38.4s
729:    learn: 0.1893929        total: 1m 43s   remaining: 38.3s
730:    learn: 0.1893175        total: 1m 43s   remaining: 38.1s
731:    learn: 0.1892363        total: 1m 43s   remaining: 38s
732:    learn: 0.1891573        total: 1m 43s   remaining: 37.8s
733:    learn: 0.1890705        total: 1m 44s   remaining: 37.7s
734:    learn: 0.1889960        total: 1m 44s   remaining: 37.5s
735:    learn: 0.1889208        total: 1m 44s   remaining: 37.4s
736:    learn: 0.1888389        total: 1m 44s   remaining: 37.3s
737:    learn: 0.1887631        total: 1m 44s   remaining: 37.1s
738:    learn: 0.1886936        total: 1m 44s   remaining: 37s
739:    learn: 0.1886159        total: 1m 44s   remaining: 36.8s
740:    learn: 0.1885350        total: 1m 45s   remaining: 36.7s
741:    learn: 0.1884706        total: 1m 45s   remaining: 36.6s
742:    learn: 0.1884017        total: 1m 45s   remaining: 36.4s
743:    learn: 0.1883181        total: 1m 45s   remaining: 36.3s
744:    learn: 0.1882394        total: 1m 45s   remaining: 36.1s
745:    learn: 0.1881618        total: 1m 45s   remaining: 36s
746:    learn: 0.1880812        total: 1m 45s   remaining: 35.9s
747:    learn: 0.1880093        total: 1m 46s   remaining: 35.7s
748:    learn: 0.1879469        total: 1m 46s   remaining: 35.6s
749:    learn: 0.1878862        total: 1m 46s   remaining: 35.4s
750:    learn: 0.1878125        total: 1m 46s   remaining: 35.3s
751:    learn: 0.1877381        total: 1m 46s   remaining: 35.1s
752:    learn: 0.1876703        total: 1m 46s   remaining: 35s
753:    learn: 0.1876007        total: 1m 46s   remaining: 34.9s
754:    learn: 0.1875183        total: 1m 46s   remaining: 34.7s
755:    learn: 0.1874475        total: 1m 47s   remaining: 34.6s
756:    learn: 0.1873768        total: 1m 47s   remaining: 34.4s
757:    learn: 0.1872988        total: 1m 47s   remaining: 34.3s
758:    learn: 0.1872234        total: 1m 47s   remaining: 34.2s
759:    learn: 0.1871507        total: 1m 47s   remaining: 34s
760:    learn: 0.1870779        total: 1m 47s   remaining: 33.9s
761:    learn: 0.1870130        total: 1m 47s   remaining: 33.7s
762:    learn: 0.1869427        total: 1m 48s   remaining: 33.6s
763:    learn: 0.1868592        total: 1m 48s   remaining: 33.4s
764:    learn: 0.1867949        total: 1m 48s   remaining: 33.3s
765:    learn: 0.1867160        total: 1m 48s   remaining: 33.2s
766:    learn: 0.1866433        total: 1m 48s   remaining: 33s
767:    learn: 0.1865715        total: 1m 48s   remaining: 32.9s
768:    learn: 0.1865007        total: 1m 48s   remaining: 32.7s
769:    learn: 0.1864287        total: 1m 49s   remaining: 32.6s
770:    learn: 0.1863535        total: 1m 49s   remaining: 32.5s
771:    learn: 0.1862901        total: 1m 49s   remaining: 32.3s
772:    learn: 0.1862162        total: 1m 49s   remaining: 32.2s
773:    learn: 0.1861473        total: 1m 49s   remaining: 32s
774:    learn: 0.1860756        total: 1m 49s   remaining: 31.9s
775:    learn: 0.1860101        total: 1m 49s   remaining: 31.7s
776:    learn: 0.1859454        total: 1m 50s   remaining: 31.6s
777:    learn: 0.1858806        total: 1m 50s   remaining: 31.5s
778:    learn: 0.1858042        total: 1m 50s   remaining: 31.3s
779:    learn: 0.1857255        total: 1m 50s   remaining: 31.2s
780:    learn: 0.1856385        total: 1m 50s   remaining: 31s
781:    learn: 0.1855581        total: 1m 50s   remaining: 30.9s
782:    learn: 0.1854837        total: 1m 50s   remaining: 30.7s
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783:    learn: 0.1854191        total: 1m 51s   remaining: 30.6s
784:    learn: 0.1853376        total: 1m 51s   remaining: 30.5s
785:    learn: 0.1852596        total: 1m 51s   remaining: 30.3s
786:    learn: 0.1851908        total: 1m 51s   remaining: 30.2s
787:    learn: 0.1851321        total: 1m 51s   remaining: 30s
788:    learn: 0.1850603        total: 1m 51s   remaining: 29.9s
789:    learn: 0.1849907        total: 1m 52s   remaining: 29.8s
790:    learn: 0.1849097        total: 1m 52s   remaining: 29.7s
791:    learn: 0.1848424        total: 1m 52s   remaining: 29.5s
792:    learn: 0.1847721        total: 1m 52s   remaining: 29.4s
793:    learn: 0.1847023        total: 1m 52s   remaining: 29.2s
794:    learn: 0.1846341        total: 1m 52s   remaining: 29.1s
795:    learn: 0.1845649        total: 1m 52s   remaining: 29s
796:    learn: 0.1845033        total: 1m 53s   remaining: 28.8s
797:    learn: 0.1844418        total: 1m 53s   remaining: 28.7s
798:    learn: 0.1843736        total: 1m 53s   remaining: 28.5s
799:    learn: 0.1842847        total: 1m 53s   remaining: 28.4s
800:    learn: 0.1842080        total: 1m 53s   remaining: 28.3s
801:    learn: 0.1841564        total: 1m 53s   remaining: 28.1s
802:    learn: 0.1840810        total: 1m 54s   remaining: 28s
803:    learn: 0.1840144        total: 1m 54s   remaining: 27.8s
804:    learn: 0.1839491        total: 1m 54s   remaining: 27.7s
805:    learn: 0.1838719        total: 1m 54s   remaining: 27.5s
806:    learn: 0.1838092        total: 1m 54s   remaining: 27.4s
807:    learn: 0.1837384        total: 1m 54s   remaining: 27.3s
808:    learn: 0.1836714        total: 1m 54s   remaining: 27.1s
809:    learn: 0.1836000        total: 1m 55s   remaining: 27s
810:    learn: 0.1835245        total: 1m 55s   remaining: 26.8s
811:    learn: 0.1834534        total: 1m 55s   remaining: 26.7s
812:    learn: 0.1833773        total: 1m 55s   remaining: 26.6s
813:    learn: 0.1833239        total: 1m 55s   remaining: 26.4s
814:    learn: 0.1832691        total: 1m 55s   remaining: 26.3s
815:    learn: 0.1832022        total: 1m 55s   remaining: 26.1s
816:    learn: 0.1831399        total: 1m 56s   remaining: 26s
817:    learn: 0.1830733        total: 1m 56s   remaining: 25.8s
818:    learn: 0.1829980        total: 1m 56s   remaining: 25.7s
819:    learn: 0.1829248        total: 1m 56s   remaining: 25.6s
820:    learn: 0.1828430        total: 1m 56s   remaining: 25.4s
821:    learn: 0.1827684        total: 1m 56s   remaining: 25.3s
822:    learn: 0.1826900        total: 1m 56s   remaining: 25.1s
823:    learn: 0.1826094        total: 1m 57s   remaining: 25s
824:    learn: 0.1825511        total: 1m 57s   remaining: 24.9s
825:    learn: 0.1824715        total: 1m 57s   remaining: 24.7s
826:    learn: 0.1824116        total: 1m 57s   remaining: 24.6s
827:    learn: 0.1823373        total: 1m 57s   remaining: 24.4s
828:    learn: 0.1822607        total: 1m 57s   remaining: 24.3s
829:    learn: 0.1821990        total: 1m 57s   remaining: 24.1s
830:    learn: 0.1821231        total: 1m 58s   remaining: 24s
831:    learn: 0.1820377        total: 1m 58s   remaining: 23.9s
832:    learn: 0.1819666        total: 1m 58s   remaining: 23.7s
833:    learn: 0.1818976        total: 1m 58s   remaining: 23.6s
834:    learn: 0.1818394        total: 1m 58s   remaining: 23.4s
835:    learn: 0.1817703        total: 1m 58s   remaining: 23.3s
836:    learn: 0.1816981        total: 1m 58s   remaining: 23.1s
837:    learn: 0.1816451        total: 1m 58s   remaining: 23s
838:    learn: 0.1815670        total: 1m 59s   remaining: 22.9s
839:    learn: 0.1814874        total: 1m 59s   remaining: 22.7s
840:    learn: 0.1814274        total: 1m 59s   remaining: 22.6s
841:    learn: 0.1813529        total: 1m 59s   remaining: 22.4s
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842:    learn: 0.1812850        total: 1m 59s   remaining: 22.3s
843:    learn: 0.1812303        total: 1m 59s   remaining: 22.1s
844:    learn: 0.1811726        total: 1m 59s   remaining: 22s
845:    learn: 0.1811023        total: 2m       remaining: 21.9s
846:    learn: 0.1810302        total: 2m       remaining: 21.7s
847:    learn: 0.1809606        total: 2m       remaining: 21.6s
848:    learn: 0.1808773        total: 2m       remaining: 21.4s
849:    learn: 0.1808014        total: 2m       remaining: 21.3s
850:    learn: 0.1807486        total: 2m       remaining: 21.2s
851:    learn: 0.1806700        total: 2m       remaining: 21s
852:    learn: 0.1806063        total: 2m 1s    remaining: 20.9s
853:    learn: 0.1805299        total: 2m 1s    remaining: 20.7s
854:    learn: 0.1804782        total: 2m 1s    remaining: 20.6s
855:    learn: 0.1804142        total: 2m 1s    remaining: 20.4s
856:    learn: 0.1803578        total: 2m 1s    remaining: 20.3s
857:    learn: 0.1802856        total: 2m 1s    remaining: 20.2s
858:    learn: 0.1802193        total: 2m 1s    remaining: 20s
859:    learn: 0.1801653        total: 2m 2s    remaining: 19.9s
860:    learn: 0.1800940        total: 2m 2s    remaining: 19.7s
861:    learn: 0.1800152        total: 2m 2s    remaining: 19.6s
862:    learn: 0.1799336        total: 2m 2s    remaining: 19.5s
863:    learn: 0.1798736        total: 2m 2s    remaining: 19.3s
864:    learn: 0.1798143        total: 2m 2s    remaining: 19.2s
865:    learn: 0.1797457        total: 2m 3s    remaining: 19s
866:    learn: 0.1796763        total: 2m 3s    remaining: 18.9s
867:    learn: 0.1796045        total: 2m 3s    remaining: 18.8s
868:    learn: 0.1795398        total: 2m 3s    remaining: 18.6s
869:    learn: 0.1794701        total: 2m 3s    remaining: 18.5s
870:    learn: 0.1794100        total: 2m 3s    remaining: 18.3s
871:    learn: 0.1793509        total: 2m 3s    remaining: 18.2s
872:    learn: 0.1792751        total: 2m 4s    remaining: 18.1s
873:    learn: 0.1792000        total: 2m 4s    remaining: 17.9s
874:    learn: 0.1791313        total: 2m 4s    remaining: 17.8s
875:    learn: 0.1790638        total: 2m 4s    remaining: 17.6s
876:    learn: 0.1789957        total: 2m 4s    remaining: 17.5s
877:    learn: 0.1789553        total: 2m 4s    remaining: 17.3s
878:    learn: 0.1788967        total: 2m 4s    remaining: 17.2s
879:    learn: 0.1788369        total: 2m 5s    remaining: 17.1s
880:    learn: 0.1787821        total: 2m 5s    remaining: 16.9s
881:    learn: 0.1787247        total: 2m 5s    remaining: 16.8s
882:    learn: 0.1786646        total: 2m 5s    remaining: 16.6s
883:    learn: 0.1786003        total: 2m 5s    remaining: 16.5s
884:    learn: 0.1785449        total: 2m 5s    remaining: 16.3s
885:    learn: 0.1784831        total: 2m 5s    remaining: 16.2s
886:    learn: 0.1784258        total: 2m 6s    remaining: 16.1s
887:    learn: 0.1783649        total: 2m 6s    remaining: 15.9s
888:    learn: 0.1783099        total: 2m 6s    remaining: 15.8s
889:    learn: 0.1782530        total: 2m 6s    remaining: 15.6s
890:    learn: 0.1781922        total: 2m 6s    remaining: 15.5s
891:    learn: 0.1781222        total: 2m 6s    remaining: 15.3s
892:    learn: 0.1780558        total: 2m 6s    remaining: 15.2s
893:    learn: 0.1779863        total: 2m 7s    remaining: 15.1s
894:    learn: 0.1779239        total: 2m 7s    remaining: 14.9s
895:    learn: 0.1778606        total: 2m 7s    remaining: 14.8s
896:    learn: 0.1777957        total: 2m 7s    remaining: 14.6s
897:    learn: 0.1777280        total: 2m 7s    remaining: 14.5s
898:    learn: 0.1776745        total: 2m 7s    remaining: 14.4s
899:    learn: 0.1775991        total: 2m 8s    remaining: 14.2s
900:    learn: 0.1775287        total: 2m 8s    remaining: 14.1s
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901:    learn: 0.1774620        total: 2m 8s    remaining: 14s
902:    learn: 0.1774081        total: 2m 8s    remaining: 13.8s
903:    learn: 0.1773325        total: 2m 8s    remaining: 13.7s
904:    learn: 0.1772795        total: 2m 8s    remaining: 13.5s
905:    learn: 0.1771998        total: 2m 9s    remaining: 13.4s
906:    learn: 0.1771392        total: 2m 9s    remaining: 13.2s
907:    learn: 0.1770697        total: 2m 9s    remaining: 13.1s
908:    learn: 0.1770142        total: 2m 9s    remaining: 13s
909:    learn: 0.1769514        total: 2m 9s    remaining: 12.8s
910:    learn: 0.1769010        total: 2m 9s    remaining: 12.7s
911:    learn: 0.1768375        total: 2m 9s    remaining: 12.5s
912:    learn: 0.1767663        total: 2m 10s   remaining: 12.4s
913:    learn: 0.1767118        total: 2m 10s   remaining: 12.2s
914:    learn: 0.1766541        total: 2m 10s   remaining: 12.1s
915:    learn: 0.1765900        total: 2m 10s   remaining: 12s
916:    learn: 0.1765283        total: 2m 10s   remaining: 11.8s
917:    learn: 0.1764727        total: 2m 10s   remaining: 11.7s
918:    learn: 0.1764188        total: 2m 10s   remaining: 11.5s
919:    learn: 0.1763415        total: 2m 11s   remaining: 11.4s
920:    learn: 0.1762668        total: 2m 11s   remaining: 11.3s
921:    learn: 0.1762034        total: 2m 11s   remaining: 11.1s
922:    learn: 0.1761400        total: 2m 11s   remaining: 11s
923:    learn: 0.1760782        total: 2m 11s   remaining: 10.8s
924:    learn: 0.1760158        total: 2m 11s   remaining: 10.7s
925:    learn: 0.1759442        total: 2m 11s   remaining: 10.5s
926:    learn: 0.1758948        total: 2m 12s   remaining: 10.4s
927:    learn: 0.1758361        total: 2m 12s   remaining: 10.3s
928:    learn: 0.1757833        total: 2m 12s   remaining: 10.1s
929:    learn: 0.1757053        total: 2m 12s   remaining: 9.97s
930:    learn: 0.1756353        total: 2m 12s   remaining: 9.83s
931:    learn: 0.1755824        total: 2m 12s   remaining: 9.68s
932:    learn: 0.1755309        total: 2m 12s   remaining: 9.54s
933:    learn: 0.1754718        total: 2m 13s   remaining: 9.4s
934:    learn: 0.1754069        total: 2m 13s   remaining: 9.26s
935:    learn: 0.1753516        total: 2m 13s   remaining: 9.11s
936:    learn: 0.1753018        total: 2m 13s   remaining: 8.97s
937:    learn: 0.1752372        total: 2m 13s   remaining: 8.83s
938:    learn: 0.1751718        total: 2m 13s   remaining: 8.68s
939:    learn: 0.1751175        total: 2m 13s   remaining: 8.54s
940:    learn: 0.1750455        total: 2m 13s   remaining: 8.4s
941:    learn: 0.1749831        total: 2m 14s   remaining: 8.26s
942:    learn: 0.1749169        total: 2m 14s   remaining: 8.12s
943:    learn: 0.1748452        total: 2m 14s   remaining: 7.97s
944:    learn: 0.1747786        total: 2m 14s   remaining: 7.83s
945:    learn: 0.1747275        total: 2m 14s   remaining: 7.69s
946:    learn: 0.1746673        total: 2m 14s   remaining: 7.55s
947:    learn: 0.1746064        total: 2m 15s   remaining: 7.41s
948:    learn: 0.1745384        total: 2m 15s   remaining: 7.26s
949:    learn: 0.1744607        total: 2m 15s   remaining: 7.12s
950:    learn: 0.1743969        total: 2m 15s   remaining: 6.98s
951:    learn: 0.1743370        total: 2m 15s   remaining: 6.84s
952:    learn: 0.1742685        total: 2m 15s   remaining: 6.69s
953:    learn: 0.1742150        total: 2m 15s   remaining: 6.55s
954:    learn: 0.1741582        total: 2m 16s   remaining: 6.41s
955:    learn: 0.1740894        total: 2m 16s   remaining: 6.27s
956:    learn: 0.1740366        total: 2m 16s   remaining: 6.12s
957:    learn: 0.1739912        total: 2m 16s   remaining: 5.98s
958:    learn: 0.1739333        total: 2m 16s   remaining: 5.84s
959:    learn: 0.1738685        total: 2m 16s   remaining: 5.7s
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960:    learn: 0.1738174        total: 2m 16s   remaining: 5.55s
961:    learn: 0.1737590        total: 2m 17s   remaining: 5.41s
962:    learn: 0.1736908        total: 2m 17s   remaining: 5.27s
963:    learn: 0.1736446        total: 2m 17s   remaining: 5.13s
964:    learn: 0.1736000        total: 2m 17s   remaining: 4.98s
965:    learn: 0.1735368        total: 2m 17s   remaining: 4.84s
966:    learn: 0.1734833        total: 2m 17s   remaining: 4.7s
967:    learn: 0.1734287        total: 2m 17s   remaining: 4.56s
968:    learn: 0.1733777        total: 2m 17s   remaining: 4.41s
969:    learn: 0.1733040        total: 2m 18s   remaining: 4.27s
970:    learn: 0.1732404        total: 2m 18s   remaining: 4.13s
971:    learn: 0.1731557        total: 2m 18s   remaining: 3.99s
972:    learn: 0.1730994        total: 2m 18s   remaining: 3.85s
973:    learn: 0.1730231        total: 2m 18s   remaining: 3.7s
974:    learn: 0.1729566        total: 2m 18s   remaining: 3.56s
975:    learn: 0.1729026        total: 2m 19s   remaining: 3.42s
976:    learn: 0.1728362        total: 2m 19s   remaining: 3.28s
977:    learn: 0.1727759        total: 2m 19s   remaining: 3.13s
978:    learn: 0.1727202        total: 2m 19s   remaining: 2.99s
979:    learn: 0.1726577        total: 2m 19s   remaining: 2.85s
980:    learn: 0.1726083        total: 2m 19s   remaining: 2.71s
981:    learn: 0.1725443        total: 2m 19s   remaining: 2.56s
982:    learn: 0.1724791        total: 2m 20s   remaining: 2.42s
983:    learn: 0.1724293        total: 2m 20s   remaining: 2.28s
984:    learn: 0.1723707        total: 2m 20s   remaining: 2.14s
985:    learn: 0.1723199        total: 2m 20s   remaining: 1.99s
986:    learn: 0.1722668        total: 2m 20s   remaining: 1.85s
987:    learn: 0.1722104        total: 2m 20s   remaining: 1.71s
988:    learn: 0.1721383        total: 2m 20s   remaining: 1.57s
989:    learn: 0.1720754        total: 2m 21s   remaining: 1.42s
990:    learn: 0.1720144        total: 2m 21s   remaining: 1.28s
991:    learn: 0.1719601        total: 2m 21s   remaining: 1.14s
992:    learn: 0.1719093        total: 2m 21s   remaining: 997ms
993:    learn: 0.1718440        total: 2m 21s   remaining: 854ms
994:    learn: 0.1717793        total: 2m 21s   remaining: 712ms
995:    learn: 0.1717097        total: 2m 21s   remaining: 570ms
996:    learn: 0.1716431        total: 2m 21s   remaining: 427ms
997:    learn: 0.1715718        total: 2m 22s   remaining: 285ms
998:    learn: 0.1715075        total: 2m 22s   remaining: 142ms
999:    learn: 0.1714573        total: 2m 22s   remaining: 0us
[CV]  learning_rate=0.03, l2_leaf_reg=3, iterations=1000, depth=8, ctr_b
order_count=200, border_count=50, score=0.8845313495744977, total= 2.5mi
n
[CV] learning_rate=0.03, l2_leaf_reg=3, iterations=1000, depth=8, ctr_bo
rder_count=200, border_count=50
0:      learn: 0.6671076        total: 178ms    remaining: 2m 57s
1:      learn: 0.6427777        total: 368ms    remaining: 3m 3s
2:      learn: 0.6197880        total: 585ms    remaining: 3m 14s
3:      learn: 0.5985834        total: 797ms    remaining: 3m 18s
4:      learn: 0.5785973        total: 993ms    remaining: 3m 17s
5:      learn: 0.5603532        total: 1.2s     remaining: 3m 18s
6:      learn: 0.5429924        total: 1.38s    remaining: 3m 15s
7:      learn: 0.5271044        total: 1.58s    remaining: 3m 15s
8:      learn: 0.5124361        total: 1.75s    remaining: 3m 13s
9:      learn: 0.4989122        total: 1.96s    remaining: 3m 14s
10:     learn: 0.4860592        total: 2.17s    remaining: 3m 15s
11:     learn: 0.4742977        total: 2.33s    remaining: 3m 12s
12:     learn: 0.4634497        total: 2.49s    remaining: 3m 8s
13:     learn: 0.4530205        total: 2.63s    remaining: 3m 5s
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14:     learn: 0.4432457        total: 2.8s     remaining: 3m 3s
15:     learn: 0.4336960        total: 2.95s    remaining: 3m 1s
16:     learn: 0.4251332        total: 3.08s    remaining: 2m 58s
17:     learn: 0.4175454        total: 3.23s    remaining: 2m 56s
18:     learn: 0.4102916        total: 3.38s    remaining: 2m 54s
19:     learn: 0.4035951        total: 3.53s    remaining: 2m 52s
20:     learn: 0.3971609        total: 3.69s    remaining: 2m 52s
21:     learn: 0.3908492        total: 3.83s    remaining: 2m 50s
22:     learn: 0.3850019        total: 3.98s    remaining: 2m 49s
23:     learn: 0.3796665        total: 4.11s    remaining: 2m 47s
24:     learn: 0.3745407        total: 4.26s    remaining: 2m 46s
25:     learn: 0.3698743        total: 4.4s     remaining: 2m 44s
26:     learn: 0.3653549        total: 4.54s    remaining: 2m 43s
27:     learn: 0.3613834        total: 4.7s     remaining: 2m 43s
28:     learn: 0.3575610        total: 4.85s    remaining: 2m 42s
29:     learn: 0.3539464        total: 4.98s    remaining: 2m 41s
30:     learn: 0.3506996        total: 5.11s    remaining: 2m 39s
31:     learn: 0.3472842        total: 5.24s    remaining: 2m 38s
32:     learn: 0.3445716        total: 5.38s    remaining: 2m 37s
33:     learn: 0.3416264        total: 5.52s    remaining: 2m 36s
34:     learn: 0.3388000        total: 5.66s    remaining: 2m 36s
35:     learn: 0.3362947        total: 5.8s     remaining: 2m 35s
36:     learn: 0.3337238        total: 5.93s    remaining: 2m 34s
37:     learn: 0.3313684        total: 6.06s    remaining: 2m 33s
38:     learn: 0.3290156        total: 6.22s    remaining: 2m 33s
39:     learn: 0.3269739        total: 6.35s    remaining: 2m 32s
40:     learn: 0.3250341        total: 6.48s    remaining: 2m 31s
41:     learn: 0.3231735        total: 6.61s    remaining: 2m 30s
42:     learn: 0.3214108        total: 6.74s    remaining: 2m 29s
43:     learn: 0.3197639        total: 6.87s    remaining: 2m 29s
44:     learn: 0.3181326        total: 7.03s    remaining: 2m 29s
45:     learn: 0.3166228        total: 7.18s    remaining: 2m 29s
46:     learn: 0.3150799        total: 7.36s    remaining: 2m 29s
47:     learn: 0.3137264        total: 7.54s    remaining: 2m 29s
48:     learn: 0.3124005        total: 7.7s     remaining: 2m 29s
49:     learn: 0.3111728        total: 7.86s    remaining: 2m 29s
50:     learn: 0.3099684        total: 8.04s    remaining: 2m 29s
51:     learn: 0.3088427        total: 8.19s    remaining: 2m 29s
52:     learn: 0.3076722        total: 8.32s    remaining: 2m 28s
53:     learn: 0.3065354        total: 8.5s     remaining: 2m 28s
54:     learn: 0.3055012        total: 8.68s    remaining: 2m 29s
55:     learn: 0.3045287        total: 8.86s    remaining: 2m 29s
56:     learn: 0.3035749        total: 9.03s    remaining: 2m 29s
57:     learn: 0.3026811        total: 9.15s    remaining: 2m 28s
58:     learn: 0.3018051        total: 9.29s    remaining: 2m 28s
59:     learn: 0.3009991        total: 9.43s    remaining: 2m 27s
60:     learn: 0.3001740        total: 9.57s    remaining: 2m 27s
61:     learn: 0.2994329        total: 9.69s    remaining: 2m 26s
62:     learn: 0.2986846        total: 9.81s    remaining: 2m 25s
63:     learn: 0.2979595        total: 9.96s    remaining: 2m 25s
64:     learn: 0.2972516        total: 10.1s    remaining: 2m 25s
65:     learn: 0.2965472        total: 10.2s    remaining: 2m 24s
66:     learn: 0.2958793        total: 10.4s    remaining: 2m 24s
67:     learn: 0.2952411        total: 10.5s    remaining: 2m 23s
68:     learn: 0.2945999        total: 10.6s    remaining: 2m 23s
69:     learn: 0.2939768        total: 10.7s    remaining: 2m 22s
70:     learn: 0.2934117        total: 10.9s    remaining: 2m 22s
71:     learn: 0.2927730        total: 11s      remaining: 2m 21s
72:     learn: 0.2921785        total: 11.1s    remaining: 2m 21s
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73:     learn: 0.2917146        total: 11.3s    remaining: 2m 20s
74:     learn: 0.2911543        total: 11.4s    remaining: 2m 20s
75:     learn: 0.2906029        total: 11.5s    remaining: 2m 19s
76:     learn: 0.2900425        total: 11.7s    remaining: 2m 19s
77:     learn: 0.2895245        total: 11.8s    remaining: 2m 19s
78:     learn: 0.2889965        total: 11.9s    remaining: 2m 18s
79:     learn: 0.2885460        total: 12s      remaining: 2m 18s
80:     learn: 0.2880364        total: 12.2s    remaining: 2m 18s
81:     learn: 0.2875487        total: 12.3s    remaining: 2m 17s
82:     learn: 0.2870592        total: 12.4s    remaining: 2m 17s
83:     learn: 0.2865888        total: 12.6s    remaining: 2m 17s
84:     learn: 0.2861269        total: 12.7s    remaining: 2m 16s
85:     learn: 0.2856786        total: 12.8s    remaining: 2m 16s
86:     learn: 0.2852511        total: 13s      remaining: 2m 16s
87:     learn: 0.2848233        total: 13.1s    remaining: 2m 15s
88:     learn: 0.2843893        total: 13.2s    remaining: 2m 15s
89:     learn: 0.2839508        total: 13.4s    remaining: 2m 15s
90:     learn: 0.2835285        total: 13.5s    remaining: 2m 15s
91:     learn: 0.2831185        total: 13.7s    remaining: 2m 14s
92:     learn: 0.2826955        total: 13.8s    remaining: 2m 14s
93:     learn: 0.2823307        total: 13.9s    remaining: 2m 14s
94:     learn: 0.2819128        total: 14.1s    remaining: 2m 13s
95:     learn: 0.2815277        total: 14.2s    remaining: 2m 13s
96:     learn: 0.2811262        total: 14.3s    remaining: 2m 13s
97:     learn: 0.2807102        total: 14.4s    remaining: 2m 12s
98:     learn: 0.2803768        total: 14.6s    remaining: 2m 12s
99:     learn: 0.2800049        total: 14.7s    remaining: 2m 12s
100:    learn: 0.2796510        total: 14.8s    remaining: 2m 12s
101:    learn: 0.2792906        total: 15s      remaining: 2m 11s
102:    learn: 0.2789197        total: 15.1s    remaining: 2m 11s
103:    learn: 0.2785535        total: 15.2s    remaining: 2m 11s
104:    learn: 0.2781822        total: 15.3s    remaining: 2m 10s
105:    learn: 0.2778356        total: 15.5s    remaining: 2m 10s
106:    learn: 0.2775042        total: 15.6s    remaining: 2m 10s
107:    learn: 0.2771534        total: 15.7s    remaining: 2m 9s
108:    learn: 0.2768131        total: 15.9s    remaining: 2m 9s
109:    learn: 0.2764794        total: 16s      remaining: 2m 9s
110:    learn: 0.2761435        total: 16.2s    remaining: 2m 9s
111:    learn: 0.2758176        total: 16.3s    remaining: 2m 9s
112:    learn: 0.2755203        total: 16.4s    remaining: 2m 8s
113:    learn: 0.2751942        total: 16.5s    remaining: 2m 8s
114:    learn: 0.2748534        total: 16.7s    remaining: 2m 8s
115:    learn: 0.2745269        total: 16.8s    remaining: 2m 8s
116:    learn: 0.2742125        total: 17s      remaining: 2m 7s
117:    learn: 0.2738640        total: 17.1s    remaining: 2m 7s
118:    learn: 0.2735738        total: 17.2s    remaining: 2m 7s
119:    learn: 0.2733014        total: 17.4s    remaining: 2m 7s
120:    learn: 0.2729791        total: 17.5s    remaining: 2m 7s
121:    learn: 0.2726680        total: 17.6s    remaining: 2m 6s
122:    learn: 0.2723831        total: 17.8s    remaining: 2m 6s
123:    learn: 0.2720875        total: 17.9s    remaining: 2m 6s
124:    learn: 0.2717810        total: 18s      remaining: 2m 6s
125:    learn: 0.2715144        total: 18.2s    remaining: 2m 6s
126:    learn: 0.2712140        total: 18.3s    remaining: 2m 5s
127:    learn: 0.2709051        total: 18.4s    remaining: 2m 5s
128:    learn: 0.2705992        total: 18.6s    remaining: 2m 5s
129:    learn: 0.2703465        total: 18.7s    remaining: 2m 5s
130:    learn: 0.2700878        total: 18.8s    remaining: 2m 4s
131:    learn: 0.2698016        total: 19s      remaining: 2m 4s
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132:    learn: 0.2694903        total: 19.1s    remaining: 2m 4s
133:    learn: 0.2691930        total: 19.2s    remaining: 2m 4s
134:    learn: 0.2688865        total: 19.3s    remaining: 2m 3s
135:    learn: 0.2686046        total: 19.5s    remaining: 2m 3s
136:    learn: 0.2683221        total: 19.6s    remaining: 2m 3s
137:    learn: 0.2680389        total: 19.7s    remaining: 2m 3s
138:    learn: 0.2677394        total: 19.9s    remaining: 2m 3s
139:    learn: 0.2674819        total: 20s      remaining: 2m 2s
140:    learn: 0.2672329        total: 20.2s    remaining: 2m 2s
141:    learn: 0.2669821        total: 20.3s    remaining: 2m 2s
142:    learn: 0.2666814        total: 20.4s    remaining: 2m 2s
143:    learn: 0.2664259        total: 20.6s    remaining: 2m 2s
144:    learn: 0.2661609        total: 20.7s    remaining: 2m 2s
145:    learn: 0.2659029        total: 20.8s    remaining: 2m 1s
146:    learn: 0.2656406        total: 21s      remaining: 2m 1s
147:    learn: 0.2654361        total: 21.1s    remaining: 2m 1s
148:    learn: 0.2651742        total: 21.3s    remaining: 2m 1s
149:    learn: 0.2649040        total: 21.4s    remaining: 2m 1s
150:    learn: 0.2646665        total: 21.5s    remaining: 2m
151:    learn: 0.2643861        total: 21.6s    remaining: 2m
152:    learn: 0.2641508        total: 21.8s    remaining: 2m
153:    learn: 0.2639080        total: 21.9s    remaining: 2m
154:    learn: 0.2636683        total: 22s      remaining: 2m
155:    learn: 0.2634384        total: 22.2s    remaining: 2m
156:    learn: 0.2631723        total: 22.3s    remaining: 1m 59s
157:    learn: 0.2629365        total: 22.4s    remaining: 1m 59s
158:    learn: 0.2626814        total: 22.6s    remaining: 1m 59s
159:    learn: 0.2624582        total: 22.7s    remaining: 1m 59s
160:    learn: 0.2622049        total: 22.8s    remaining: 1m 58s
161:    learn: 0.2619916        total: 23s      remaining: 1m 58s
162:    learn: 0.2617349        total: 23.2s    remaining: 1m 59s
163:    learn: 0.2614995        total: 23.4s    remaining: 1m 59s
164:    learn: 0.2612712        total: 23.6s    remaining: 1m 59s
165:    learn: 0.2610392        total: 23.7s    remaining: 1m 59s
166:    learn: 0.2608067        total: 23.9s    remaining: 1m 59s
167:    learn: 0.2605591        total: 24s      remaining: 1m 58s
168:    learn: 0.2602970        total: 24.2s    remaining: 1m 58s
169:    learn: 0.2600273        total: 24.3s    remaining: 1m 58s
170:    learn: 0.2597931        total: 24.4s    remaining: 1m 58s
171:    learn: 0.2595627        total: 24.6s    remaining: 1m 58s
172:    learn: 0.2593195        total: 24.7s    remaining: 1m 58s
173:    learn: 0.2590822        total: 24.8s    remaining: 1m 57s
174:    learn: 0.2588473        total: 25s      remaining: 1m 57s
175:    learn: 0.2586242        total: 25.1s    remaining: 1m 57s
176:    learn: 0.2583990        total: 25.2s    remaining: 1m 57s
177:    learn: 0.2581717        total: 25.4s    remaining: 1m 57s
178:    learn: 0.2579464        total: 25.5s    remaining: 1m 56s
179:    learn: 0.2577275        total: 25.6s    remaining: 1m 56s
180:    learn: 0.2574955        total: 25.8s    remaining: 1m 56s
181:    learn: 0.2572584        total: 25.9s    remaining: 1m 56s
182:    learn: 0.2570166        total: 26s      remaining: 1m 56s
183:    learn: 0.2568081        total: 26.2s    remaining: 1m 55s
184:    learn: 0.2565841        total: 26.3s    remaining: 1m 55s
185:    learn: 0.2563599        total: 26.4s    remaining: 1m 55s
186:    learn: 0.2561271        total: 26.6s    remaining: 1m 55s
187:    learn: 0.2559193        total: 26.7s    remaining: 1m 55s
188:    learn: 0.2556903        total: 26.8s    remaining: 1m 55s
189:    learn: 0.2554810        total: 26.9s    remaining: 1m 54s
190:    learn: 0.2552591        total: 27.1s    remaining: 1m 54s
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191:    learn: 0.2550632        total: 27.2s    remaining: 1m 54s
192:    learn: 0.2548376        total: 27.4s    remaining: 1m 54s
193:    learn: 0.2546262        total: 27.5s    remaining: 1m 54s
194:    learn: 0.2544140        total: 27.6s    remaining: 1m 54s
195:    learn: 0.2542030        total: 27.8s    remaining: 1m 53s
196:    learn: 0.2540028        total: 27.9s    remaining: 1m 53s
197:    learn: 0.2538060        total: 28s      remaining: 1m 53s
198:    learn: 0.2535913        total: 28.2s    remaining: 1m 53s
199:    learn: 0.2534084        total: 28.3s    remaining: 1m 53s
200:    learn: 0.2531939        total: 28.4s    remaining: 1m 53s
201:    learn: 0.2529751        total: 28.6s    remaining: 1m 52s
202:    learn: 0.2527803        total: 28.7s    remaining: 1m 52s
203:    learn: 0.2525713        total: 28.8s    remaining: 1m 52s
204:    learn: 0.2523532        total: 29s      remaining: 1m 52s
205:    learn: 0.2521779        total: 29.1s    remaining: 1m 52s
206:    learn: 0.2519739        total: 29.3s    remaining: 1m 52s
207:    learn: 0.2517581        total: 29.4s    remaining: 1m 51s
208:    learn: 0.2515451        total: 29.5s    remaining: 1m 51s
209:    learn: 0.2513447        total: 29.7s    remaining: 1m 51s
210:    learn: 0.2511450        total: 29.8s    remaining: 1m 51s
211:    learn: 0.2509774        total: 30s      remaining: 1m 51s
212:    learn: 0.2507748        total: 30.1s    remaining: 1m 51s
213:    learn: 0.2505630        total: 30.2s    remaining: 1m 51s
214:    learn: 0.2503779        total: 30.4s    remaining: 1m 50s
215:    learn: 0.2501792        total: 30.5s    remaining: 1m 50s
216:    learn: 0.2499790        total: 30.6s    remaining: 1m 50s
217:    learn: 0.2497731        total: 30.8s    remaining: 1m 50s
218:    learn: 0.2495841        total: 30.9s    remaining: 1m 50s
219:    learn: 0.2493985        total: 31s      remaining: 1m 50s
220:    learn: 0.2492068        total: 31.2s    remaining: 1m 49s
221:    learn: 0.2490022        total: 31.3s    remaining: 1m 49s
222:    learn: 0.2487992        total: 31.4s    remaining: 1m 49s
223:    learn: 0.2486185        total: 31.6s    remaining: 1m 49s
224:    learn: 0.2484383        total: 31.7s    remaining: 1m 49s
225:    learn: 0.2482452        total: 31.9s    remaining: 1m 49s
226:    learn: 0.2480634        total: 32s      remaining: 1m 48s
227:    learn: 0.2478734        total: 32.1s    remaining: 1m 48s
228:    learn: 0.2477010        total: 32.2s    remaining: 1m 48s
229:    learn: 0.2475111        total: 32.4s    remaining: 1m 48s
230:    learn: 0.2473213        total: 32.5s    remaining: 1m 48s
231:    learn: 0.2471180        total: 32.7s    remaining: 1m 48s
232:    learn: 0.2469217        total: 32.8s    remaining: 1m 47s
233:    learn: 0.2467182        total: 32.9s    remaining: 1m 47s
234:    learn: 0.2465259        total: 33.1s    remaining: 1m 47s
235:    learn: 0.2463212        total: 33.2s    remaining: 1m 47s
236:    learn: 0.2461319        total: 33.4s    remaining: 1m 47s
237:    learn: 0.2459425        total: 33.5s    remaining: 1m 47s
238:    learn: 0.2457651        total: 33.6s    remaining: 1m 47s
239:    learn: 0.2455769        total: 33.8s    remaining: 1m 46s
240:    learn: 0.2454115        total: 33.9s    remaining: 1m 46s
241:    learn: 0.2452360        total: 34s      remaining: 1m 46s
242:    learn: 0.2450738        total: 34.2s    remaining: 1m 46s
243:    learn: 0.2448934        total: 34.3s    remaining: 1m 46s
244:    learn: 0.2447144        total: 34.4s    remaining: 1m 46s
245:    learn: 0.2445243        total: 34.6s    remaining: 1m 45s
246:    learn: 0.2443416        total: 34.7s    remaining: 1m 45s
247:    learn: 0.2441803        total: 34.8s    remaining: 1m 45s
248:    learn: 0.2439878        total: 35s      remaining: 1m 45s
249:    learn: 0.2438133        total: 35.1s    remaining: 1m 45s
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250:    learn: 0.2436362        total: 35.2s    remaining: 1m 45s
251:    learn: 0.2434581        total: 35.4s    remaining: 1m 44s
252:    learn: 0.2432858        total: 35.5s    remaining: 1m 44s
253:    learn: 0.2431306        total: 35.6s    remaining: 1m 44s
254:    learn: 0.2429587        total: 35.8s    remaining: 1m 44s
255:    learn: 0.2428026        total: 35.9s    remaining: 1m 44s
256:    learn: 0.2426271        total: 36.1s    remaining: 1m 44s
257:    learn: 0.2424451        total: 36.2s    remaining: 1m 44s
258:    learn: 0.2422502        total: 36.4s    remaining: 1m 44s
259:    learn: 0.2420708        total: 36.5s    remaining: 1m 43s
260:    learn: 0.2419095        total: 36.6s    remaining: 1m 43s
261:    learn: 0.2417537        total: 36.8s    remaining: 1m 43s
262:    learn: 0.2415807        total: 36.9s    remaining: 1m 43s
263:    learn: 0.2414073        total: 37s      remaining: 1m 43s
264:    learn: 0.2412388        total: 37.2s    remaining: 1m 43s
265:    learn: 0.2410630        total: 37.3s    remaining: 1m 42s
266:    learn: 0.2408834        total: 37.5s    remaining: 1m 42s
267:    learn: 0.2407039        total: 37.6s    remaining: 1m 42s
268:    learn: 0.2405353        total: 37.7s    remaining: 1m 42s
269:    learn: 0.2403605        total: 37.9s    remaining: 1m 42s
270:    learn: 0.2402003        total: 38s      remaining: 1m 42s
271:    learn: 0.2400322        total: 38.2s    remaining: 1m 42s
272:    learn: 0.2398961        total: 38.3s    remaining: 1m 41s
273:    learn: 0.2397407        total: 38.4s    remaining: 1m 41s
274:    learn: 0.2395982        total: 38.6s    remaining: 1m 41s
275:    learn: 0.2394282        total: 38.7s    remaining: 1m 41s
276:    learn: 0.2392622        total: 38.9s    remaining: 1m 41s
277:    learn: 0.2391025        total: 39.1s    remaining: 1m 41s
278:    learn: 0.2389446        total: 39.3s    remaining: 1m 41s
279:    learn: 0.2388070        total: 39.4s    remaining: 1m 41s
280:    learn: 0.2386363        total: 39.6s    remaining: 1m 41s
281:    learn: 0.2384860        total: 39.8s    remaining: 1m 41s
282:    learn: 0.2383277        total: 39.9s    remaining: 1m 41s
283:    learn: 0.2381900        total: 40.1s    remaining: 1m 41s
284:    learn: 0.2380406        total: 40.2s    remaining: 1m 40s
285:    learn: 0.2378915        total: 40.3s    remaining: 1m 40s
286:    learn: 0.2377345        total: 40.5s    remaining: 1m 40s
287:    learn: 0.2375604        total: 40.6s    remaining: 1m 40s
288:    learn: 0.2373967        total: 40.8s    remaining: 1m 40s
289:    learn: 0.2372259        total: 40.9s    remaining: 1m 40s
290:    learn: 0.2370764        total: 41.1s    remaining: 1m 40s
291:    learn: 0.2369058        total: 41.2s    remaining: 1m 39s
292:    learn: 0.2367420        total: 41.3s    remaining: 1m 39s
293:    learn: 0.2365875        total: 41.5s    remaining: 1m 39s
294:    learn: 0.2364604        total: 41.6s    remaining: 1m 39s
295:    learn: 0.2363290        total: 41.7s    remaining: 1m 39s
296:    learn: 0.2361853        total: 41.9s    remaining: 1m 39s
297:    learn: 0.2360286        total: 42s      remaining: 1m 39s
298:    learn: 0.2358793        total: 42.2s    remaining: 1m 38s
299:    learn: 0.2357148        total: 42.3s    remaining: 1m 38s
300:    learn: 0.2355753        total: 42.4s    remaining: 1m 38s
301:    learn: 0.2354331        total: 42.6s    remaining: 1m 38s
302:    learn: 0.2352820        total: 42.7s    remaining: 1m 38s
303:    learn: 0.2351458        total: 42.8s    remaining: 1m 38s
304:    learn: 0.2349760        total: 43s      remaining: 1m 37s
305:    learn: 0.2348139        total: 43.1s    remaining: 1m 37s
306:    learn: 0.2346658        total: 43.3s    remaining: 1m 37s
307:    learn: 0.2345264        total: 43.4s    remaining: 1m 37s
308:    learn: 0.2343687        total: 43.6s    remaining: 1m 37s
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309:    learn: 0.2342252        total: 43.7s    remaining: 1m 37s
310:    learn: 0.2340840        total: 43.8s    remaining: 1m 37s
311:    learn: 0.2339282        total: 44s      remaining: 1m 36s
312:    learn: 0.2337910        total: 44.1s    remaining: 1m 36s
313:    learn: 0.2336592        total: 44.2s    remaining: 1m 36s
314:    learn: 0.2335091        total: 44.4s    remaining: 1m 36s
315:    learn: 0.2333703        total: 44.5s    remaining: 1m 36s
316:    learn: 0.2331955        total: 44.6s    remaining: 1m 36s
317:    learn: 0.2330471        total: 44.8s    remaining: 1m 36s
318:    learn: 0.2329147        total: 44.9s    remaining: 1m 35s
319:    learn: 0.2327473        total: 45s      remaining: 1m 35s
320:    learn: 0.2325998        total: 45.2s    remaining: 1m 35s
321:    learn: 0.2324740        total: 45.3s    remaining: 1m 35s
322:    learn: 0.2323308        total: 45.5s    remaining: 1m 35s
323:    learn: 0.2322024        total: 45.6s    remaining: 1m 35s
324:    learn: 0.2320684        total: 45.7s    remaining: 1m 34s
325:    learn: 0.2319319        total: 45.9s    remaining: 1m 34s
326:    learn: 0.2317793        total: 46s      remaining: 1m 34s
327:    learn: 0.2316561        total: 46.1s    remaining: 1m 34s
328:    learn: 0.2315236        total: 46.3s    remaining: 1m 34s
329:    learn: 0.2313777        total: 46.4s    remaining: 1m 34s
330:    learn: 0.2312306        total: 46.5s    remaining: 1m 34s
331:    learn: 0.2310925        total: 46.7s    remaining: 1m 33s
332:    learn: 0.2309661        total: 46.8s    remaining: 1m 33s
333:    learn: 0.2308182        total: 47s      remaining: 1m 33s
334:    learn: 0.2306879        total: 47.1s    remaining: 1m 33s
335:    learn: 0.2305516        total: 47.2s    remaining: 1m 33s
336:    learn: 0.2304218        total: 47.4s    remaining: 1m 33s
337:    learn: 0.2302954        total: 47.5s    remaining: 1m 33s
338:    learn: 0.2301574        total: 47.7s    remaining: 1m 32s
339:    learn: 0.2300388        total: 47.8s    remaining: 1m 32s
340:    learn: 0.2299040        total: 47.9s    remaining: 1m 32s
341:    learn: 0.2297850        total: 48.1s    remaining: 1m 32s
342:    learn: 0.2296506        total: 48.2s    remaining: 1m 32s
343:    learn: 0.2295049        total: 48.4s    remaining: 1m 32s
344:    learn: 0.2293551        total: 48.5s    remaining: 1m 32s
345:    learn: 0.2292172        total: 48.7s    remaining: 1m 31s
346:    learn: 0.2290538        total: 48.8s    remaining: 1m 31s
347:    learn: 0.2289141        total: 48.9s    remaining: 1m 31s
348:    learn: 0.2287658        total: 49.1s    remaining: 1m 31s
349:    learn: 0.2286237        total: 49.2s    remaining: 1m 31s
350:    learn: 0.2284993        total: 49.4s    remaining: 1m 31s
351:    learn: 0.2283668        total: 49.5s    remaining: 1m 31s
352:    learn: 0.2282242        total: 49.7s    remaining: 1m 31s
353:    learn: 0.2280811        total: 49.8s    remaining: 1m 30s
354:    learn: 0.2279558        total: 49.9s    remaining: 1m 30s
355:    learn: 0.2278257        total: 50.1s    remaining: 1m 30s
356:    learn: 0.2276971        total: 50.2s    remaining: 1m 30s
357:    learn: 0.2275611        total: 50.4s    remaining: 1m 30s
358:    learn: 0.2274296        total: 50.5s    remaining: 1m 30s
359:    learn: 0.2272977        total: 50.6s    remaining: 1m 30s
360:    learn: 0.2271629        total: 50.8s    remaining: 1m 29s
361:    learn: 0.2270163        total: 50.9s    remaining: 1m 29s
362:    learn: 0.2268864        total: 51.1s    remaining: 1m 29s
363:    learn: 0.2267665        total: 51.2s    remaining: 1m 29s
364:    learn: 0.2266397        total: 51.4s    remaining: 1m 29s
365:    learn: 0.2265112        total: 51.5s    remaining: 1m 29s
366:    learn: 0.2263782        total: 51.7s    remaining: 1m 29s
367:    learn: 0.2262417        total: 51.8s    remaining: 1m 28s
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368:    learn: 0.2261104        total: 51.9s    remaining: 1m 28s
369:    learn: 0.2259921        total: 52.1s    remaining: 1m 28s
370:    learn: 0.2258595        total: 52.2s    remaining: 1m 28s
371:    learn: 0.2257219        total: 52.4s    remaining: 1m 28s
372:    learn: 0.2255983        total: 52.5s    remaining: 1m 28s
373:    learn: 0.2254570        total: 52.7s    remaining: 1m 28s
374:    learn: 0.2253232        total: 52.8s    remaining: 1m 28s
375:    learn: 0.2251906        total: 53s      remaining: 1m 27s
376:    learn: 0.2250554        total: 53.1s    remaining: 1m 27s
377:    learn: 0.2249243        total: 53.2s    remaining: 1m 27s
378:    learn: 0.2247909        total: 53.4s    remaining: 1m 27s
379:    learn: 0.2246547        total: 53.5s    remaining: 1m 27s
380:    learn: 0.2245137        total: 53.7s    remaining: 1m 27s
381:    learn: 0.2243918        total: 53.8s    remaining: 1m 27s
382:    learn: 0.2242552        total: 53.9s    remaining: 1m 26s
383:    learn: 0.2241212        total: 54.1s    remaining: 1m 26s
384:    learn: 0.2239839        total: 54.2s    remaining: 1m 26s
385:    learn: 0.2238590        total: 54.3s    remaining: 1m 26s
386:    learn: 0.2237387        total: 54.5s    remaining: 1m 26s
387:    learn: 0.2236099        total: 54.6s    remaining: 1m 26s
388:    learn: 0.2234748        total: 54.8s    remaining: 1m 26s
389:    learn: 0.2233545        total: 54.9s    remaining: 1m 25s
390:    learn: 0.2232379        total: 55.1s    remaining: 1m 25s
391:    learn: 0.2231073        total: 55.3s    remaining: 1m 25s
392:    learn: 0.2229766        total: 55.4s    remaining: 1m 25s
393:    learn: 0.2228428        total: 55.6s    remaining: 1m 25s
394:    learn: 0.2227290        total: 55.8s    remaining: 1m 25s
395:    learn: 0.2226021        total: 55.9s    remaining: 1m 25s
396:    learn: 0.2224776        total: 56.1s    remaining: 1m 25s
397:    learn: 0.2223652        total: 56.2s    remaining: 1m 24s
398:    learn: 0.2222485        total: 56.3s    remaining: 1m 24s
399:    learn: 0.2221225        total: 56.5s    remaining: 1m 24s
400:    learn: 0.2219918        total: 56.6s    remaining: 1m 24s
401:    learn: 0.2218597        total: 56.7s    remaining: 1m 24s
402:    learn: 0.2217315        total: 56.9s    remaining: 1m 24s
403:    learn: 0.2216176        total: 57s      remaining: 1m 24s
404:    learn: 0.2215040        total: 57.2s    remaining: 1m 23s
405:    learn: 0.2213768        total: 57.3s    remaining: 1m 23s
406:    learn: 0.2212572        total: 57.4s    remaining: 1m 23s
407:    learn: 0.2211371        total: 57.6s    remaining: 1m 23s
408:    learn: 0.2210168        total: 57.7s    remaining: 1m 23s
409:    learn: 0.2208996        total: 57.8s    remaining: 1m 23s
410:    learn: 0.2207897        total: 58s      remaining: 1m 23s
411:    learn: 0.2206753        total: 58.1s    remaining: 1m 22s
412:    learn: 0.2205495        total: 58.2s    remaining: 1m 22s
413:    learn: 0.2204204        total: 58.4s    remaining: 1m 22s
414:    learn: 0.2203037        total: 58.5s    remaining: 1m 22s
415:    learn: 0.2201792        total: 58.7s    remaining: 1m 22s
416:    learn: 0.2200556        total: 58.8s    remaining: 1m 22s
417:    learn: 0.2199233        total: 59s      remaining: 1m 22s
418:    learn: 0.2198181        total: 59.1s    remaining: 1m 21s
419:    learn: 0.2197059        total: 59.2s    remaining: 1m 21s
420:    learn: 0.2195873        total: 59.4s    remaining: 1m 21s
421:    learn: 0.2194671        total: 59.5s    remaining: 1m 21s
422:    learn: 0.2193427        total: 59.6s    remaining: 1m 21s
423:    learn: 0.2192356        total: 59.8s    remaining: 1m 21s
424:    learn: 0.2191238        total: 59.9s    remaining: 1m 21s
425:    learn: 0.2190025        total: 1m       remaining: 1m 20s
426:    learn: 0.2188830        total: 1m       remaining: 1m 20s
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427:    learn: 0.2187671        total: 1m       remaining: 1m 20s
428:    learn: 0.2186422        total: 1m       remaining: 1m 20s
429:    learn: 0.2185174        total: 1m       remaining: 1m 20s
430:    learn: 0.2184097        total: 1m       remaining: 1m 20s
431:    learn: 0.2183034        total: 1m       remaining: 1m 20s
432:    learn: 0.2181979        total: 1m       remaining: 1m 19s
433:    learn: 0.2180667        total: 1m 1s    remaining: 1m 19s
434:    learn: 0.2179473        total: 1m 1s    remaining: 1m 19s
435:    learn: 0.2178249        total: 1m 1s    remaining: 1m 19s
436:    learn: 0.2177039        total: 1m 1s    remaining: 1m 19s
437:    learn: 0.2176052        total: 1m 1s    remaining: 1m 19s
438:    learn: 0.2174758        total: 1m 1s    remaining: 1m 19s
439:    learn: 0.2173705        total: 1m 1s    remaining: 1m 18s
440:    learn: 0.2172514        total: 1m 2s    remaining: 1m 18s
441:    learn: 0.2171301        total: 1m 2s    remaining: 1m 18s
442:    learn: 0.2170073        total: 1m 2s    remaining: 1m 18s
443:    learn: 0.2169002        total: 1m 2s    remaining: 1m 18s
444:    learn: 0.2167760        total: 1m 2s    remaining: 1m 18s
445:    learn: 0.2166581        total: 1m 2s    remaining: 1m 17s
446:    learn: 0.2165543        total: 1m 2s    remaining: 1m 17s
447:    learn: 0.2164316        total: 1m 3s    remaining: 1m 17s
448:    learn: 0.2163128        total: 1m 3s    remaining: 1m 17s
449:    learn: 0.2162031        total: 1m 3s    remaining: 1m 17s
450:    learn: 0.2160941        total: 1m 3s    remaining: 1m 17s
451:    learn: 0.2159905        total: 1m 3s    remaining: 1m 17s
452:    learn: 0.2158761        total: 1m 3s    remaining: 1m 16s
453:    learn: 0.2157546        total: 1m 3s    remaining: 1m 16s
454:    learn: 0.2156395        total: 1m 4s    remaining: 1m 16s
455:    learn: 0.2155394        total: 1m 4s    remaining: 1m 16s
456:    learn: 0.2154266        total: 1m 4s    remaining: 1m 16s
457:    learn: 0.2153104        total: 1m 4s    remaining: 1m 16s
458:    learn: 0.2151989        total: 1m 4s    remaining: 1m 16s
459:    learn: 0.2150750        total: 1m 4s    remaining: 1m 15s
460:    learn: 0.2149546        total: 1m 4s    remaining: 1m 15s
461:    learn: 0.2148335        total: 1m 5s    remaining: 1m 15s
462:    learn: 0.2147313        total: 1m 5s    remaining: 1m 15s
463:    learn: 0.2146088        total: 1m 5s    remaining: 1m 15s
464:    learn: 0.2144970        total: 1m 5s    remaining: 1m 15s
465:    learn: 0.2143746        total: 1m 5s    remaining: 1m 15s
466:    learn: 0.2142706        total: 1m 5s    remaining: 1m 14s
467:    learn: 0.2141478        total: 1m 5s    remaining: 1m 14s
468:    learn: 0.2140459        total: 1m 5s    remaining: 1m 14s
469:    learn: 0.2139319        total: 1m 6s    remaining: 1m 14s
470:    learn: 0.2138369        total: 1m 6s    remaining: 1m 14s
471:    learn: 0.2137259        total: 1m 6s    remaining: 1m 14s
472:    learn: 0.2136314        total: 1m 6s    remaining: 1m 14s
473:    learn: 0.2135114        total: 1m 6s    remaining: 1m 14s
474:    learn: 0.2134014        total: 1m 6s    remaining: 1m 13s
475:    learn: 0.2132930        total: 1m 7s    remaining: 1m 13s
476:    learn: 0.2131750        total: 1m 7s    remaining: 1m 13s
477:    learn: 0.2130699        total: 1m 7s    remaining: 1m 13s
478:    learn: 0.2129688        total: 1m 7s    remaining: 1m 13s
479:    learn: 0.2128596        total: 1m 7s    remaining: 1m 13s
480:    learn: 0.2127549        total: 1m 7s    remaining: 1m 13s
481:    learn: 0.2126538        total: 1m 7s    remaining: 1m 12s
482:    learn: 0.2125561        total: 1m 7s    remaining: 1m 12s
483:    learn: 0.2124254        total: 1m 8s    remaining: 1m 12s
484:    learn: 0.2123249        total: 1m 8s    remaining: 1m 12s
485:    learn: 0.2122013        total: 1m 8s    remaining: 1m 12s
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486:    learn: 0.2120841        total: 1m 8s    remaining: 1m 12s
487:    learn: 0.2119767        total: 1m 8s    remaining: 1m 12s
488:    learn: 0.2118741        total: 1m 8s    remaining: 1m 11s
489:    learn: 0.2117727        total: 1m 8s    remaining: 1m 11s
490:    learn: 0.2116633        total: 1m 9s    remaining: 1m 11s
491:    learn: 0.2115545        total: 1m 9s    remaining: 1m 11s
492:    learn: 0.2114543        total: 1m 9s    remaining: 1m 11s
493:    learn: 0.2113440        total: 1m 9s    remaining: 1m 11s
494:    learn: 0.2112219        total: 1m 9s    remaining: 1m 11s
495:    learn: 0.2111102        total: 1m 9s    remaining: 1m 11s
496:    learn: 0.2110021        total: 1m 10s   remaining: 1m 10s
497:    learn: 0.2109055        total: 1m 10s   remaining: 1m 10s
498:    learn: 0.2107993        total: 1m 10s   remaining: 1m 10s
499:    learn: 0.2106981        total: 1m 10s   remaining: 1m 10s
500:    learn: 0.2105954        total: 1m 10s   remaining: 1m 10s
501:    learn: 0.2104778        total: 1m 10s   remaining: 1m 10s
502:    learn: 0.2103756        total: 1m 10s   remaining: 1m 10s
503:    learn: 0.2102628        total: 1m 11s   remaining: 1m 9s
504:    learn: 0.2101655        total: 1m 11s   remaining: 1m 9s
505:    learn: 0.2100741        total: 1m 11s   remaining: 1m 9s
506:    learn: 0.2099715        total: 1m 11s   remaining: 1m 9s
507:    learn: 0.2098754        total: 1m 11s   remaining: 1m 9s
508:    learn: 0.2097617        total: 1m 11s   remaining: 1m 9s
509:    learn: 0.2096542        total: 1m 12s   remaining: 1m 9s
510:    learn: 0.2095502        total: 1m 12s   remaining: 1m 9s
511:    learn: 0.2094439        total: 1m 12s   remaining: 1m 9s
512:    learn: 0.2093385        total: 1m 12s   remaining: 1m 8s
513:    learn: 0.2092328        total: 1m 12s   remaining: 1m 8s
514:    learn: 0.2091364        total: 1m 12s   remaining: 1m 8s
515:    learn: 0.2090307        total: 1m 12s   remaining: 1m 8s
516:    learn: 0.2089393        total: 1m 13s   remaining: 1m 8s
517:    learn: 0.2088396        total: 1m 13s   remaining: 1m 8s
518:    learn: 0.2087478        total: 1m 13s   remaining: 1m 8s
519:    learn: 0.2086390        total: 1m 13s   remaining: 1m 7s
520:    learn: 0.2085503        total: 1m 13s   remaining: 1m 7s
521:    learn: 0.2084336        total: 1m 13s   remaining: 1m 7s
522:    learn: 0.2083307        total: 1m 13s   remaining: 1m 7s
523:    learn: 0.2082286        total: 1m 14s   remaining: 1m 7s
524:    learn: 0.2081267        total: 1m 14s   remaining: 1m 7s
525:    learn: 0.2080217        total: 1m 14s   remaining: 1m 7s
526:    learn: 0.2079247        total: 1m 14s   remaining: 1m 6s
527:    learn: 0.2078324        total: 1m 14s   remaining: 1m 6s
528:    learn: 0.2077316        total: 1m 14s   remaining: 1m 6s
529:    learn: 0.2076283        total: 1m 15s   remaining: 1m 6s
530:    learn: 0.2075215        total: 1m 15s   remaining: 1m 6s
531:    learn: 0.2074218        total: 1m 15s   remaining: 1m 6s
532:    learn: 0.2073263        total: 1m 15s   remaining: 1m 6s
533:    learn: 0.2072396        total: 1m 15s   remaining: 1m 5s
534:    learn: 0.2071423        total: 1m 15s   remaining: 1m 5s
535:    learn: 0.2070371        total: 1m 15s   remaining: 1m 5s
536:    learn: 0.2069416        total: 1m 16s   remaining: 1m 5s
537:    learn: 0.2068382        total: 1m 16s   remaining: 1m 5s
538:    learn: 0.2067389        total: 1m 16s   remaining: 1m 5s
539:    learn: 0.2066414        total: 1m 16s   remaining: 1m 5s
540:    learn: 0.2065379        total: 1m 16s   remaining: 1m 5s
541:    learn: 0.2064342        total: 1m 16s   remaining: 1m 4s
542:    learn: 0.2063518        total: 1m 16s   remaining: 1m 4s
543:    learn: 0.2062636        total: 1m 17s   remaining: 1m 4s
544:    learn: 0.2061473        total: 1m 17s   remaining: 1m 4s
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545:    learn: 0.2060531        total: 1m 17s   remaining: 1m 4s
546:    learn: 0.2059420        total: 1m 17s   remaining: 1m 4s
547:    learn: 0.2058523        total: 1m 17s   remaining: 1m 4s
548:    learn: 0.2057402        total: 1m 17s   remaining: 1m 3s
549:    learn: 0.2056417        total: 1m 17s   remaining: 1m 3s
550:    learn: 0.2055397        total: 1m 18s   remaining: 1m 3s
551:    learn: 0.2054540        total: 1m 18s   remaining: 1m 3s
552:    learn: 0.2053631        total: 1m 18s   remaining: 1m 3s
553:    learn: 0.2052565        total: 1m 18s   remaining: 1m 3s
554:    learn: 0.2051636        total: 1m 18s   remaining: 1m 3s
555:    learn: 0.2050771        total: 1m 18s   remaining: 1m 2s
556:    learn: 0.2049855        total: 1m 18s   remaining: 1m 2s
557:    learn: 0.2048958        total: 1m 19s   remaining: 1m 2s
558:    learn: 0.2048088        total: 1m 19s   remaining: 1m 2s
559:    learn: 0.2047156        total: 1m 19s   remaining: 1m 2s
560:    learn: 0.2046148        total: 1m 19s   remaining: 1m 2s
561:    learn: 0.2045247        total: 1m 19s   remaining: 1m 2s
562:    learn: 0.2044310        total: 1m 19s   remaining: 1m 1s
563:    learn: 0.2043289        total: 1m 19s   remaining: 1m 1s
564:    learn: 0.2042362        total: 1m 20s   remaining: 1m 1s
565:    learn: 0.2041436        total: 1m 20s   remaining: 1m 1s
566:    learn: 0.2040506        total: 1m 20s   remaining: 1m 1s
567:    learn: 0.2039567        total: 1m 20s   remaining: 1m 1s
568:    learn: 0.2038743        total: 1m 20s   remaining: 1m 1s
569:    learn: 0.2037889        total: 1m 20s   remaining: 1m
570:    learn: 0.2037023        total: 1m 20s   remaining: 1m
571:    learn: 0.2036008        total: 1m 21s   remaining: 1m
572:    learn: 0.2034954        total: 1m 21s   remaining: 1m
573:    learn: 0.2034047        total: 1m 21s   remaining: 1m
574:    learn: 0.2033039        total: 1m 21s   remaining: 1m
575:    learn: 0.2032043        total: 1m 21s   remaining: 1m
576:    learn: 0.2031075        total: 1m 21s   remaining: 59.9s
577:    learn: 0.2030153        total: 1m 21s   remaining: 59.8s
578:    learn: 0.2029239        total: 1m 22s   remaining: 59.6s
579:    learn: 0.2028253        total: 1m 22s   remaining: 59.5s
580:    learn: 0.2027263        total: 1m 22s   remaining: 59.4s
581:    learn: 0.2026374        total: 1m 22s   remaining: 59.2s
582:    learn: 0.2025368        total: 1m 22s   remaining: 59.1s
583:    learn: 0.2024490        total: 1m 22s   remaining: 58.9s
584:    learn: 0.2023468        total: 1m 22s   remaining: 58.8s
585:    learn: 0.2022436        total: 1m 23s   remaining: 58.6s
586:    learn: 0.2021554        total: 1m 23s   remaining: 58.5s
587:    learn: 0.2020653        total: 1m 23s   remaining: 58.4s
588:    learn: 0.2019795        total: 1m 23s   remaining: 58.2s
589:    learn: 0.2018814        total: 1m 23s   remaining: 58.1s
590:    learn: 0.2017773        total: 1m 23s   remaining: 58s
591:    learn: 0.2016706        total: 1m 23s   remaining: 57.8s
592:    learn: 0.2015644        total: 1m 24s   remaining: 57.7s
593:    learn: 0.2014781        total: 1m 24s   remaining: 57.5s
594:    learn: 0.2013873        total: 1m 24s   remaining: 57.4s
595:    learn: 0.2012953        total: 1m 24s   remaining: 57.2s
596:    learn: 0.2012100        total: 1m 24s   remaining: 57.1s
597:    learn: 0.2011295        total: 1m 24s   remaining: 57s
598:    learn: 0.2010279        total: 1m 24s   remaining: 56.8s
599:    learn: 0.2009234        total: 1m 25s   remaining: 56.7s
600:    learn: 0.2008207        total: 1m 25s   remaining: 56.6s
601:    learn: 0.2007250        total: 1m 25s   remaining: 56.4s
602:    learn: 0.2006315        total: 1m 25s   remaining: 56.3s
603:    learn: 0.2005571        total: 1m 25s   remaining: 56.2s
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604:    learn: 0.2004612        total: 1m 25s   remaining: 56s
605:    learn: 0.2003784        total: 1m 25s   remaining: 55.9s
606:    learn: 0.2002789        total: 1m 26s   remaining: 55.7s
607:    learn: 0.2001834        total: 1m 26s   remaining: 55.6s
608:    learn: 0.2000921        total: 1m 26s   remaining: 55.4s
609:    learn: 0.1999889        total: 1m 26s   remaining: 55.3s
610:    learn: 0.1999077        total: 1m 26s   remaining: 55.2s
611:    learn: 0.1998371        total: 1m 26s   remaining: 55.1s
612:    learn: 0.1997523        total: 1m 27s   remaining: 54.9s
613:    learn: 0.1996597        total: 1m 27s   remaining: 54.8s
614:    learn: 0.1995741        total: 1m 27s   remaining: 54.7s
615:    learn: 0.1994806        total: 1m 27s   remaining: 54.6s
616:    learn: 0.1993914        total: 1m 27s   remaining: 54.4s
617:    learn: 0.1993126        total: 1m 27s   remaining: 54.3s
618:    learn: 0.1992261        total: 1m 27s   remaining: 54.2s
619:    learn: 0.1991376        total: 1m 28s   remaining: 54s
620:    learn: 0.1990479        total: 1m 28s   remaining: 53.9s
621:    learn: 0.1989616        total: 1m 28s   remaining: 53.7s
622:    learn: 0.1988787        total: 1m 28s   remaining: 53.6s
623:    learn: 0.1987877        total: 1m 28s   remaining: 53.4s
624:    learn: 0.1987063        total: 1m 28s   remaining: 53.3s
625:    learn: 0.1986214        total: 1m 28s   remaining: 53.2s
626:    learn: 0.1985384        total: 1m 29s   remaining: 53s
627:    learn: 0.1984516        total: 1m 29s   remaining: 52.9s
628:    learn: 0.1983639        total: 1m 29s   remaining: 52.7s
629:    learn: 0.1982927        total: 1m 29s   remaining: 52.6s
630:    learn: 0.1981990        total: 1m 29s   remaining: 52.5s
631:    learn: 0.1981001        total: 1m 29s   remaining: 52.3s
632:    learn: 0.1980074        total: 1m 30s   remaining: 52.2s
633:    learn: 0.1979187        total: 1m 30s   remaining: 52.1s
634:    learn: 0.1978396        total: 1m 30s   remaining: 51.9s
635:    learn: 0.1977495        total: 1m 30s   remaining: 51.8s
636:    learn: 0.1976711        total: 1m 30s   remaining: 51.7s
637:    learn: 0.1975814        total: 1m 30s   remaining: 51.5s
638:    learn: 0.1974904        total: 1m 30s   remaining: 51.4s
639:    learn: 0.1974267        total: 1m 31s   remaining: 51.2s
640:    learn: 0.1973523        total: 1m 31s   remaining: 51.1s
641:    learn: 0.1972692        total: 1m 31s   remaining: 51s
642:    learn: 0.1971777        total: 1m 31s   remaining: 50.8s
643:    learn: 0.1970846        total: 1m 31s   remaining: 50.7s
644:    learn: 0.1970102        total: 1m 31s   remaining: 50.5s
645:    learn: 0.1969287        total: 1m 31s   remaining: 50.4s
646:    learn: 0.1968524        total: 1m 32s   remaining: 50.2s
647:    learn: 0.1967695        total: 1m 32s   remaining: 50.1s
648:    learn: 0.1966868        total: 1m 32s   remaining: 50s
649:    learn: 0.1965875        total: 1m 32s   remaining: 49.8s
650:    learn: 0.1964949        total: 1m 32s   remaining: 49.7s
651:    learn: 0.1964123        total: 1m 32s   remaining: 49.5s
652:    learn: 0.1963257        total: 1m 32s   remaining: 49.4s
653:    learn: 0.1962232        total: 1m 33s   remaining: 49.3s
654:    learn: 0.1961332        total: 1m 33s   remaining: 49.1s
655:    learn: 0.1960564        total: 1m 33s   remaining: 49s
656:    learn: 0.1959565        total: 1m 33s   remaining: 48.8s
657:    learn: 0.1958617        total: 1m 33s   remaining: 48.7s
658:    learn: 0.1957693        total: 1m 33s   remaining: 48.6s
659:    learn: 0.1956948        total: 1m 33s   remaining: 48.4s
660:    learn: 0.1956175        total: 1m 34s   remaining: 48.3s
661:    learn: 0.1955352        total: 1m 34s   remaining: 48.1s
662:    learn: 0.1954765        total: 1m 34s   remaining: 48s
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663:    learn: 0.1953895        total: 1m 34s   remaining: 47.8s
664:    learn: 0.1953136        total: 1m 34s   remaining: 47.7s
665:    learn: 0.1952443        total: 1m 34s   remaining: 47.5s
666:    learn: 0.1951733        total: 1m 34s   remaining: 47.4s
667:    learn: 0.1950987        total: 1m 35s   remaining: 47.3s
668:    learn: 0.1950233        total: 1m 35s   remaining: 47.1s
669:    learn: 0.1949447        total: 1m 35s   remaining: 47s
670:    learn: 0.1948671        total: 1m 35s   remaining: 46.8s
671:    learn: 0.1947992        total: 1m 35s   remaining: 46.7s
672:    learn: 0.1947168        total: 1m 35s   remaining: 46.5s
673:    learn: 0.1946412        total: 1m 35s   remaining: 46.4s
674:    learn: 0.1945461        total: 1m 36s   remaining: 46.2s
675:    learn: 0.1944637        total: 1m 36s   remaining: 46.1s
676:    learn: 0.1943795        total: 1m 36s   remaining: 46s
677:    learn: 0.1942990        total: 1m 36s   remaining: 45.8s
678:    learn: 0.1942282        total: 1m 36s   remaining: 45.7s
679:    learn: 0.1941463        total: 1m 36s   remaining: 45.5s
680:    learn: 0.1940604        total: 1m 36s   remaining: 45.4s
681:    learn: 0.1939766        total: 1m 37s   remaining: 45.2s
682:    learn: 0.1938981        total: 1m 37s   remaining: 45.1s
683:    learn: 0.1938270        total: 1m 37s   remaining: 45s
684:    learn: 0.1937400        total: 1m 37s   remaining: 44.8s
685:    learn: 0.1936636        total: 1m 37s   remaining: 44.7s
686:    learn: 0.1935830        total: 1m 37s   remaining: 44.5s
687:    learn: 0.1935066        total: 1m 37s   remaining: 44.4s
688:    learn: 0.1934194        total: 1m 38s   remaining: 44.3s
689:    learn: 0.1933347        total: 1m 38s   remaining: 44.1s
690:    learn: 0.1932467        total: 1m 38s   remaining: 44s
691:    learn: 0.1931785        total: 1m 38s   remaining: 43.8s
692:    learn: 0.1931044        total: 1m 38s   remaining: 43.7s
693:    learn: 0.1930332        total: 1m 38s   remaining: 43.5s
694:    learn: 0.1929670        total: 1m 38s   remaining: 43.4s
695:    learn: 0.1928889        total: 1m 39s   remaining: 43.3s
696:    learn: 0.1927950        total: 1m 39s   remaining: 43.1s
697:    learn: 0.1927033        total: 1m 39s   remaining: 43s
698:    learn: 0.1926271        total: 1m 39s   remaining: 42.8s
699:    learn: 0.1925430        total: 1m 39s   remaining: 42.7s
700:    learn: 0.1924630        total: 1m 39s   remaining: 42.5s
701:    learn: 0.1923903        total: 1m 39s   remaining: 42.4s
702:    learn: 0.1923159        total: 1m 40s   remaining: 42.2s
703:    learn: 0.1922235        total: 1m 40s   remaining: 42.1s
704:    learn: 0.1921310        total: 1m 40s   remaining: 42s
705:    learn: 0.1920534        total: 1m 40s   remaining: 41.8s
706:    learn: 0.1919665        total: 1m 40s   remaining: 41.7s
707:    learn: 0.1918849        total: 1m 40s   remaining: 41.5s
708:    learn: 0.1917960        total: 1m 40s   remaining: 41.4s
709:    learn: 0.1917051        total: 1m 41s   remaining: 41.3s
710:    learn: 0.1916388        total: 1m 41s   remaining: 41.1s
711:    learn: 0.1915616        total: 1m 41s   remaining: 41s
712:    learn: 0.1914830        total: 1m 41s   remaining: 40.8s
713:    learn: 0.1913885        total: 1m 41s   remaining: 40.7s
714:    learn: 0.1913091        total: 1m 41s   remaining: 40.6s
715:    learn: 0.1912238        total: 1m 41s   remaining: 40.4s
716:    learn: 0.1911553        total: 1m 42s   remaining: 40.3s
717:    learn: 0.1910880        total: 1m 42s   remaining: 40.1s
718:    learn: 0.1909994        total: 1m 42s   remaining: 40s
719:    learn: 0.1909165        total: 1m 42s   remaining: 39.8s
720:    learn: 0.1908404        total: 1m 42s   remaining: 39.7s
721:    learn: 0.1907598        total: 1m 42s   remaining: 39.6s
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722:    learn: 0.1906879        total: 1m 42s   remaining: 39.5s
723:    learn: 0.1906121        total: 1m 43s   remaining: 39.3s
724:    learn: 0.1905359        total: 1m 43s   remaining: 39.2s
725:    learn: 0.1904538        total: 1m 43s   remaining: 39.1s
726:    learn: 0.1903774        total: 1m 43s   remaining: 38.9s
727:    learn: 0.1902937        total: 1m 43s   remaining: 38.8s
728:    learn: 0.1902161        total: 1m 43s   remaining: 38.6s
729:    learn: 0.1901444        total: 1m 44s   remaining: 38.5s
730:    learn: 0.1900777        total: 1m 44s   remaining: 38.4s
731:    learn: 0.1899927        total: 1m 44s   remaining: 38.2s
732:    learn: 0.1899238        total: 1m 44s   remaining: 38.1s
733:    learn: 0.1898423        total: 1m 44s   remaining: 37.9s
734:    learn: 0.1897709        total: 1m 44s   remaining: 37.8s
735:    learn: 0.1897043        total: 1m 44s   remaining: 37.6s
736:    learn: 0.1896230        total: 1m 45s   remaining: 37.5s
737:    learn: 0.1895447        total: 1m 45s   remaining: 37.4s
738:    learn: 0.1894611        total: 1m 45s   remaining: 37.2s
739:    learn: 0.1893831        total: 1m 45s   remaining: 37.1s
740:    learn: 0.1892954        total: 1m 45s   remaining: 36.9s
741:    learn: 0.1892259        total: 1m 45s   remaining: 36.8s
742:    learn: 0.1891499        total: 1m 45s   remaining: 36.7s
743:    learn: 0.1890745        total: 1m 46s   remaining: 36.5s
744:    learn: 0.1890133        total: 1m 46s   remaining: 36.4s
745:    learn: 0.1889348        total: 1m 46s   remaining: 36.2s
746:    learn: 0.1888780        total: 1m 46s   remaining: 36.1s
747:    learn: 0.1888100        total: 1m 46s   remaining: 35.9s
748:    learn: 0.1887359        total: 1m 46s   remaining: 35.8s
749:    learn: 0.1886628        total: 1m 46s   remaining: 35.6s
750:    learn: 0.1885960        total: 1m 47s   remaining: 35.5s
751:    learn: 0.1885194        total: 1m 47s   remaining: 35.3s
752:    learn: 0.1884393        total: 1m 47s   remaining: 35.2s
753:    learn: 0.1883787        total: 1m 47s   remaining: 35.1s
754:    learn: 0.1883086        total: 1m 47s   remaining: 34.9s
755:    learn: 0.1882269        total: 1m 47s   remaining: 34.8s
756:    learn: 0.1881614        total: 1m 47s   remaining: 34.6s
757:    learn: 0.1880796        total: 1m 48s   remaining: 34.5s
758:    learn: 0.1880120        total: 1m 48s   remaining: 34.3s
759:    learn: 0.1879469        total: 1m 48s   remaining: 34.2s
760:    learn: 0.1878725        total: 1m 48s   remaining: 34.1s
761:    learn: 0.1877955        total: 1m 48s   remaining: 33.9s
762:    learn: 0.1877094        total: 1m 48s   remaining: 33.8s
763:    learn: 0.1876421        total: 1m 48s   remaining: 33.6s
764:    learn: 0.1875834        total: 1m 49s   remaining: 33.5s
765:    learn: 0.1875075        total: 1m 49s   remaining: 33.3s
766:    learn: 0.1874447        total: 1m 49s   remaining: 33.2s
767:    learn: 0.1873648        total: 1m 49s   remaining: 33.1s
768:    learn: 0.1872862        total: 1m 49s   remaining: 32.9s
769:    learn: 0.1872104        total: 1m 49s   remaining: 32.8s
770:    learn: 0.1871372        total: 1m 49s   remaining: 32.6s
771:    learn: 0.1870619        total: 1m 49s   remaining: 32.5s
772:    learn: 0.1870042        total: 1m 50s   remaining: 32.3s
773:    learn: 0.1869336        total: 1m 50s   remaining: 32.2s
774:    learn: 0.1868542        total: 1m 50s   remaining: 32s
775:    learn: 0.1867950        total: 1m 50s   remaining: 31.9s
776:    learn: 0.1867217        total: 1m 50s   remaining: 31.8s
777:    learn: 0.1866341        total: 1m 50s   remaining: 31.6s
778:    learn: 0.1865789        total: 1m 50s   remaining: 31.5s
779:    learn: 0.1865135        total: 1m 51s   remaining: 31.3s
780:    learn: 0.1864441        total: 1m 51s   remaining: 31.2s
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781:    learn: 0.1863646        total: 1m 51s   remaining: 31s
782:    learn: 0.1862905        total: 1m 51s   remaining: 30.9s
783:    learn: 0.1862172        total: 1m 51s   remaining: 30.8s
784:    learn: 0.1861381        total: 1m 51s   remaining: 30.6s
785:    learn: 0.1860639        total: 1m 51s   remaining: 30.5s
786:    learn: 0.1859777        total: 1m 52s   remaining: 30.3s
787:    learn: 0.1859064        total: 1m 52s   remaining: 30.2s
788:    learn: 0.1858130        total: 1m 52s   remaining: 30.1s
789:    learn: 0.1857323        total: 1m 52s   remaining: 29.9s
790:    learn: 0.1856624        total: 1m 52s   remaining: 29.8s
791:    learn: 0.1855960        total: 1m 52s   remaining: 29.6s
792:    learn: 0.1855284        total: 1m 52s   remaining: 29.5s
793:    learn: 0.1854583        total: 1m 53s   remaining: 29.3s
794:    learn: 0.1854013        total: 1m 53s   remaining: 29.2s
795:    learn: 0.1853262        total: 1m 53s   remaining: 29.1s
796:    learn: 0.1852625        total: 1m 53s   remaining: 28.9s
797:    learn: 0.1851812        total: 1m 53s   remaining: 28.8s
798:    learn: 0.1851090        total: 1m 53s   remaining: 28.6s
799:    learn: 0.1850395        total: 1m 53s   remaining: 28.5s
800:    learn: 0.1849542        total: 1m 54s   remaining: 28.3s
801:    learn: 0.1848800        total: 1m 54s   remaining: 28.2s
802:    learn: 0.1848087        total: 1m 54s   remaining: 28.1s
803:    learn: 0.1847405        total: 1m 54s   remaining: 27.9s
804:    learn: 0.1846766        total: 1m 54s   remaining: 27.8s
805:    learn: 0.1846021        total: 1m 54s   remaining: 27.6s
806:    learn: 0.1845249        total: 1m 54s   remaining: 27.5s
807:    learn: 0.1844411        total: 1m 55s   remaining: 27.4s
808:    learn: 0.1843828        total: 1m 55s   remaining: 27.2s
809:    learn: 0.1843080        total: 1m 55s   remaining: 27.1s
810:    learn: 0.1842468        total: 1m 55s   remaining: 26.9s
811:    learn: 0.1841759        total: 1m 55s   remaining: 26.8s
812:    learn: 0.1841011        total: 1m 55s   remaining: 26.6s
813:    learn: 0.1840284        total: 1m 55s   remaining: 26.5s
814:    learn: 0.1839613        total: 1m 56s   remaining: 26.3s
815:    learn: 0.1838767        total: 1m 56s   remaining: 26.2s
816:    learn: 0.1837875        total: 1m 56s   remaining: 26.1s
817:    learn: 0.1837212        total: 1m 56s   remaining: 25.9s
818:    learn: 0.1836415        total: 1m 56s   remaining: 25.8s
819:    learn: 0.1835784        total: 1m 56s   remaining: 25.6s
820:    learn: 0.1835055        total: 1m 56s   remaining: 25.5s
821:    learn: 0.1834248        total: 1m 57s   remaining: 25.4s
822:    learn: 0.1833536        total: 1m 57s   remaining: 25.2s
823:    learn: 0.1832828        total: 1m 57s   remaining: 25.1s
824:    learn: 0.1832217        total: 1m 57s   remaining: 24.9s
825:    learn: 0.1831595        total: 1m 57s   remaining: 24.8s
826:    learn: 0.1830916        total: 1m 57s   remaining: 24.6s
827:    learn: 0.1830121        total: 1m 57s   remaining: 24.5s
828:    learn: 0.1829349        total: 1m 58s   remaining: 24.4s
829:    learn: 0.1828730        total: 1m 58s   remaining: 24.2s
830:    learn: 0.1828043        total: 1m 58s   remaining: 24.1s
831:    learn: 0.1827342        total: 1m 58s   remaining: 23.9s
832:    learn: 0.1826722        total: 1m 58s   remaining: 23.8s
833:    learn: 0.1825993        total: 1m 58s   remaining: 23.7s
834:    learn: 0.1825326        total: 1m 59s   remaining: 23.5s
835:    learn: 0.1824603        total: 1m 59s   remaining: 23.4s
836:    learn: 0.1823853        total: 1m 59s   remaining: 23.2s
837:    learn: 0.1823073        total: 1m 59s   remaining: 23.1s
838:    learn: 0.1822485        total: 1m 59s   remaining: 23s
839:    learn: 0.1821812        total: 1m 59s   remaining: 22.8s
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840:    learn: 0.1820957        total: 1m 59s   remaining: 22.7s
841:    learn: 0.1820308        total: 2m       remaining: 22.5s
842:    learn: 0.1819721        total: 2m       remaining: 22.4s
843:    learn: 0.1818980        total: 2m       remaining: 22.3s
844:    learn: 0.1818299        total: 2m       remaining: 22.1s
845:    learn: 0.1817522        total: 2m       remaining: 22s
846:    learn: 0.1816875        total: 2m       remaining: 21.8s
847:    learn: 0.1816276        total: 2m       remaining: 21.7s
848:    learn: 0.1815603        total: 2m 1s    remaining: 21.5s
849:    learn: 0.1814763        total: 2m 1s    remaining: 21.4s
850:    learn: 0.1814176        total: 2m 1s    remaining: 21.3s
851:    learn: 0.1813498        total: 2m 1s    remaining: 21.1s
852:    learn: 0.1812948        total: 2m 1s    remaining: 21s
853:    learn: 0.1812224        total: 2m 1s    remaining: 20.8s
854:    learn: 0.1811630        total: 2m 1s    remaining: 20.7s
855:    learn: 0.1810872        total: 2m 2s    remaining: 20.5s
856:    learn: 0.1810172        total: 2m 2s    remaining: 20.4s
857:    learn: 0.1809566        total: 2m 2s    remaining: 20.3s
858:    learn: 0.1808773        total: 2m 2s    remaining: 20.1s
859:    learn: 0.1808219        total: 2m 2s    remaining: 20s
860:    learn: 0.1807534        total: 2m 2s    remaining: 19.8s
861:    learn: 0.1806942        total: 2m 2s    remaining: 19.7s
862:    learn: 0.1806213        total: 2m 3s    remaining: 19.5s
863:    learn: 0.1805566        total: 2m 3s    remaining: 19.4s
864:    learn: 0.1804928        total: 2m 3s    remaining: 19.3s
865:    learn: 0.1804309        total: 2m 3s    remaining: 19.1s
866:    learn: 0.1803583        total: 2m 3s    remaining: 19s
867:    learn: 0.1802952        total: 2m 3s    remaining: 18.8s
868:    learn: 0.1802411        total: 2m 3s    remaining: 18.7s
869:    learn: 0.1801691        total: 2m 4s    remaining: 18.5s
870:    learn: 0.1800932        total: 2m 4s    remaining: 18.4s
871:    learn: 0.1800236        total: 2m 4s    remaining: 18.3s
872:    learn: 0.1799594        total: 2m 4s    remaining: 18.1s
873:    learn: 0.1798925        total: 2m 4s    remaining: 18s
874:    learn: 0.1798286        total: 2m 4s    remaining: 17.8s
875:    learn: 0.1797519        total: 2m 4s    remaining: 17.7s
876:    learn: 0.1796886        total: 2m 5s    remaining: 17.5s
877:    learn: 0.1796226        total: 2m 5s    remaining: 17.4s
878:    learn: 0.1795444        total: 2m 5s    remaining: 17.3s
879:    learn: 0.1794872        total: 2m 5s    remaining: 17.1s
880:    learn: 0.1794350        total: 2m 5s    remaining: 17s
881:    learn: 0.1793721        total: 2m 5s    remaining: 16.8s
882:    learn: 0.1793010        total: 2m 5s    remaining: 16.7s
883:    learn: 0.1792422        total: 2m 6s    remaining: 16.5s
884:    learn: 0.1791740        total: 2m 6s    remaining: 16.4s
885:    learn: 0.1791094        total: 2m 6s    remaining: 16.3s
886:    learn: 0.1790423        total: 2m 6s    remaining: 16.1s
887:    learn: 0.1789599        total: 2m 6s    remaining: 16s
888:    learn: 0.1789018        total: 2m 6s    remaining: 15.8s
889:    learn: 0.1788404        total: 2m 6s    remaining: 15.7s
890:    learn: 0.1787603        total: 2m 7s    remaining: 15.5s
891:    learn: 0.1786935        total: 2m 7s    remaining: 15.4s
892:    learn: 0.1786323        total: 2m 7s    remaining: 15.3s
893:    learn: 0.1785578        total: 2m 7s    remaining: 15.1s
894:    learn: 0.1784957        total: 2m 7s    remaining: 15s
895:    learn: 0.1784293        total: 2m 7s    remaining: 14.8s
896:    learn: 0.1783689        total: 2m 8s    remaining: 14.7s
897:    learn: 0.1783112        total: 2m 8s    remaining: 14.6s
898:    learn: 0.1782491        total: 2m 8s    remaining: 14.4s
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899:    learn: 0.1781824        total: 2m 8s    remaining: 14.3s
900:    learn: 0.1781209        total: 2m 8s    remaining: 14.1s
901:    learn: 0.1780509        total: 2m 8s    remaining: 14s
902:    learn: 0.1779889        total: 2m 8s    remaining: 13.8s
903:    learn: 0.1779353        total: 2m 9s    remaining: 13.7s
904:    learn: 0.1778539        total: 2m 9s    remaining: 13.6s
905:    learn: 0.1777916        total: 2m 9s    remaining: 13.4s
906:    learn: 0.1777272        total: 2m 9s    remaining: 13.3s
907:    learn: 0.1776687        total: 2m 9s    remaining: 13.1s
908:    learn: 0.1775980        total: 2m 9s    remaining: 13s
909:    learn: 0.1775257        total: 2m 9s    remaining: 12.8s
910:    learn: 0.1774682        total: 2m 9s    remaining: 12.7s
911:    learn: 0.1774123        total: 2m 10s   remaining: 12.6s
912:    learn: 0.1773535        total: 2m 10s   remaining: 12.4s
913:    learn: 0.1772914        total: 2m 10s   remaining: 12.3s
914:    learn: 0.1772255        total: 2m 10s   remaining: 12.1s
915:    learn: 0.1771692        total: 2m 10s   remaining: 12s
916:    learn: 0.1771092        total: 2m 10s   remaining: 11.8s
917:    learn: 0.1770383        total: 2m 10s   remaining: 11.7s
918:    learn: 0.1770000        total: 2m 11s   remaining: 11.6s
919:    learn: 0.1769386        total: 2m 11s   remaining: 11.4s
920:    learn: 0.1768732        total: 2m 11s   remaining: 11.3s
921:    learn: 0.1768011        total: 2m 11s   remaining: 11.1s
922:    learn: 0.1767414        total: 2m 11s   remaining: 11s
923:    learn: 0.1766877        total: 2m 11s   remaining: 10.8s
924:    learn: 0.1766312        total: 2m 11s   remaining: 10.7s
925:    learn: 0.1765620        total: 2m 12s   remaining: 10.6s
926:    learn: 0.1764895        total: 2m 12s   remaining: 10.4s
927:    learn: 0.1764254        total: 2m 12s   remaining: 10.3s
928:    learn: 0.1763600        total: 2m 12s   remaining: 10.1s
929:    learn: 0.1762926        total: 2m 12s   remaining: 9.99s
930:    learn: 0.1762224        total: 2m 12s   remaining: 9.85s
931:    learn: 0.1761609        total: 2m 13s   remaining: 9.71s
932:    learn: 0.1760985        total: 2m 13s   remaining: 9.56s
933:    learn: 0.1760285        total: 2m 13s   remaining: 9.42s
934:    learn: 0.1759657        total: 2m 13s   remaining: 9.28s
935:    learn: 0.1759031        total: 2m 13s   remaining: 9.13s
936:    learn: 0.1758399        total: 2m 13s   remaining: 8.99s
937:    learn: 0.1757711        total: 2m 13s   remaining: 8.85s
938:    learn: 0.1757086        total: 2m 14s   remaining: 8.71s
939:    learn: 0.1756344        total: 2m 14s   remaining: 8.56s
940:    learn: 0.1755772        total: 2m 14s   remaining: 8.42s
941:    learn: 0.1755136        total: 2m 14s   remaining: 8.28s
942:    learn: 0.1754604        total: 2m 14s   remaining: 8.14s
943:    learn: 0.1753896        total: 2m 14s   remaining: 8s
944:    learn: 0.1753390        total: 2m 14s   remaining: 7.86s
945:    learn: 0.1752826        total: 2m 15s   remaining: 7.71s
946:    learn: 0.1752247        total: 2m 15s   remaining: 7.57s
947:    learn: 0.1751423        total: 2m 15s   remaining: 7.43s
948:    learn: 0.1750827        total: 2m 15s   remaining: 7.29s
949:    learn: 0.1750233        total: 2m 15s   remaining: 7.14s
950:    learn: 0.1749638        total: 2m 15s   remaining: 7s
951:    learn: 0.1748943        total: 2m 16s   remaining: 6.86s
952:    learn: 0.1748252        total: 2m 16s   remaining: 6.72s
953:    learn: 0.1747623        total: 2m 16s   remaining: 6.57s
954:    learn: 0.1747029        total: 2m 16s   remaining: 6.43s
955:    learn: 0.1746279        total: 2m 16s   remaining: 6.29s
956:    learn: 0.1745704        total: 2m 16s   remaining: 6.14s
957:    learn: 0.1745077        total: 2m 16s   remaining: 6s
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958:    learn: 0.1744330        total: 2m 17s   remaining: 5.86s
959:    learn: 0.1743655        total: 2m 17s   remaining: 5.72s
960:    learn: 0.1743142        total: 2m 17s   remaining: 5.57s
961:    learn: 0.1742392        total: 2m 17s   remaining: 5.43s
962:    learn: 0.1741794        total: 2m 17s   remaining: 5.29s
963:    learn: 0.1741208        total: 2m 17s   remaining: 5.14s
964:    learn: 0.1740264        total: 2m 17s   remaining: 5s
965:    learn: 0.1739676        total: 2m 18s   remaining: 4.86s
966:    learn: 0.1739067        total: 2m 18s   remaining: 4.72s
967:    learn: 0.1738454        total: 2m 18s   remaining: 4.57s
968:    learn: 0.1737946        total: 2m 18s   remaining: 4.43s
969:    learn: 0.1737365        total: 2m 18s   remaining: 4.29s
970:    learn: 0.1736611        total: 2m 18s   remaining: 4.14s
971:    learn: 0.1736066        total: 2m 18s   remaining: 4s
972:    learn: 0.1735412        total: 2m 19s   remaining: 3.86s
973:    learn: 0.1734779        total: 2m 19s   remaining: 3.71s
974:    learn: 0.1734203        total: 2m 19s   remaining: 3.57s
975:    learn: 0.1733623        total: 2m 19s   remaining: 3.43s
976:    learn: 0.1733052        total: 2m 19s   remaining: 3.29s
977:    learn: 0.1732420        total: 2m 19s   remaining: 3.14s
978:    learn: 0.1731911        total: 2m 19s   remaining: 3s
979:    learn: 0.1731238        total: 2m 20s   remaining: 2.86s
980:    learn: 0.1730541        total: 2m 20s   remaining: 2.71s
981:    learn: 0.1729909        total: 2m 20s   remaining: 2.57s
982:    learn: 0.1729308        total: 2m 20s   remaining: 2.43s
983:    learn: 0.1728598        total: 2m 20s   remaining: 2.29s
984:    learn: 0.1727885        total: 2m 20s   remaining: 2.14s
985:    learn: 0.1727340        total: 2m 20s   remaining: 2s
986:    learn: 0.1726718        total: 2m 21s   remaining: 1.86s
987:    learn: 0.1726113        total: 2m 21s   remaining: 1.71s
988:    learn: 0.1725484        total: 2m 21s   remaining: 1.57s
989:    learn: 0.1724939        total: 2m 21s   remaining: 1.43s
990:    learn: 0.1724326        total: 2m 21s   remaining: 1.28s
991:    learn: 0.1723685        total: 2m 21s   remaining: 1.14s
992:    learn: 0.1723049        total: 2m 21s   remaining: 1s
993:    learn: 0.1722425        total: 2m 22s   remaining: 857ms
994:    learn: 0.1721835        total: 2m 22s   remaining: 714ms
995:    learn: 0.1721211        total: 2m 22s   remaining: 571ms
996:    learn: 0.1720581        total: 2m 22s   remaining: 429ms
997:    learn: 0.1720019        total: 2m 22s   remaining: 286ms
998:    learn: 0.1719327        total: 2m 22s   remaining: 143ms
999:    learn: 0.1718917        total: 2m 22s   remaining: 0us
[CV]  learning_rate=0.03, l2_leaf_reg=3, iterations=1000, depth=8, ctr_b
order_count=200, border_count=50, score=0.8902568956704022, total= 2.5mi
n
[CV] learning_rate=0.3, l2_leaf_reg=5, iterations=250, depth=9, ctr_bord
er_count=5, border_count=50
0:      learn: 0.4763581        total: 197ms    remaining: 49.1s
1:      learn: 0.3845401        total: 393ms    remaining: 48.7s
2:      learn: 0.3398117        total: 581ms    remaining: 47.9s
3:      learn: 0.3159644        total: 770ms    remaining: 47.4s
4:      learn: 0.3027099        total: 944ms    remaining: 46.2s
5:      learn: 0.2933673        total: 1.11s    remaining: 45.2s
6:      learn: 0.2869382        total: 1.29s    remaining: 44.8s
7:      learn: 0.2815354        total: 1.46s    remaining: 44.1s
8:      learn: 0.2771469        total: 1.62s    remaining: 43.3s
9:      learn: 0.2727960        total: 1.79s    remaining: 42.9s
10:     learn: 0.2694533        total: 1.95s    remaining: 42.4s
11:     learn: 0.2661062        total: 2.13s    remaining: 42.2s
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12:     learn: 0.2629730        total: 2.29s    remaining: 41.7s
13:     learn: 0.2598926        total: 2.46s    remaining: 41.5s
14:     learn: 0.2572447        total: 2.63s    remaining: 41.3s
15:     learn: 0.2545055        total: 2.81s    remaining: 41.1s
16:     learn: 0.2520214        total: 2.98s    remaining: 40.8s
17:     learn: 0.2495625        total: 3.16s    remaining: 40.8s
18:     learn: 0.2467607        total: 3.35s    remaining: 40.7s
19:     learn: 0.2444414        total: 3.53s    remaining: 40.6s
20:     learn: 0.2418230        total: 3.73s    remaining: 40.6s
21:     learn: 0.2397862        total: 3.92s    remaining: 40.6s
22:     learn: 0.2379509        total: 4.09s    remaining: 40.3s
23:     learn: 0.2360584        total: 4.27s    remaining: 40.2s
24:     learn: 0.2341050        total: 4.46s    remaining: 40.2s
25:     learn: 0.2322104        total: 4.63s    remaining: 39.9s
26:     learn: 0.2305401        total: 4.79s    remaining: 39.6s
27:     learn: 0.2288077        total: 4.98s    remaining: 39.5s
28:     learn: 0.2269484        total: 5.18s    remaining: 39.5s
29:     learn: 0.2253406        total: 5.37s    remaining: 39.4s
30:     learn: 0.2235029        total: 5.55s    remaining: 39.2s
31:     learn: 0.2222237        total: 5.74s    remaining: 39.1s
32:     learn: 0.2204605        total: 5.92s    remaining: 38.9s
33:     learn: 0.2189012        total: 6.11s    remaining: 38.8s
34:     learn: 0.2175346        total: 6.29s    remaining: 38.6s
35:     learn: 0.2160707        total: 6.47s    remaining: 38.4s
36:     learn: 0.2146413        total: 6.65s    remaining: 38.3s
37:     learn: 0.2130924        total: 6.85s    remaining: 38.2s
38:     learn: 0.2117924        total: 7.03s    remaining: 38s
39:     learn: 0.2104827        total: 7.22s    remaining: 37.9s
40:     learn: 0.2093378        total: 7.4s     remaining: 37.7s
41:     learn: 0.2077941        total: 7.59s    remaining: 37.6s
42:     learn: 0.2067325        total: 7.78s    remaining: 37.4s
43:     learn: 0.2054730        total: 7.97s    remaining: 37.3s
44:     learn: 0.2043842        total: 8.14s    remaining: 37.1s
45:     learn: 0.2031906        total: 8.33s    remaining: 37s
46:     learn: 0.2019356        total: 8.53s    remaining: 36.9s
47:     learn: 0.2006916        total: 8.73s    remaining: 36.7s
48:     learn: 0.1996384        total: 8.9s     remaining: 36.5s
49:     learn: 0.1984346        total: 9.09s    remaining: 36.4s
50:     learn: 0.1974911        total: 9.26s    remaining: 36.1s
51:     learn: 0.1963558        total: 9.45s    remaining: 36s
52:     learn: 0.1953135        total: 9.63s    remaining: 35.8s
53:     learn: 0.1941535        total: 9.81s    remaining: 35.6s
54:     learn: 0.1932922        total: 9.98s    remaining: 35.4s
55:     learn: 0.1922824        total: 10.2s    remaining: 35.2s
56:     learn: 0.1912615        total: 10.4s    remaining: 35.1s
57:     learn: 0.1903305        total: 10.5s    remaining: 34.9s
58:     learn: 0.1892835        total: 10.7s    remaining: 34.7s
59:     learn: 0.1883682        total: 10.9s    remaining: 34.5s
60:     learn: 0.1873787        total: 11.1s    remaining: 34.4s
61:     learn: 0.1861772        total: 11.3s    remaining: 34.2s
62:     learn: 0.1853491        total: 11.5s    remaining: 34.1s
63:     learn: 0.1844296        total: 11.7s    remaining: 34s
64:     learn: 0.1835178        total: 11.9s    remaining: 33.8s
65:     learn: 0.1824838        total: 12.1s    remaining: 33.7s
66:     learn: 0.1815681        total: 12.3s    remaining: 33.5s
67:     learn: 0.1805373        total: 12.5s    remaining: 33.4s
68:     learn: 0.1797752        total: 12.7s    remaining: 33.2s
69:     learn: 0.1788761        total: 12.9s    remaining: 33.1s
70:     learn: 0.1780269        total: 13s      remaining: 32.9s
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71:     learn: 0.1772562        total: 13.2s    remaining: 32.7s
72:     learn: 0.1764898        total: 13.4s    remaining: 32.5s
73:     learn: 0.1756672        total: 13.7s    remaining: 32.5s
74:     learn: 0.1747687        total: 13.9s    remaining: 32.5s
75:     learn: 0.1736377        total: 14.2s    remaining: 32.5s
76:     learn: 0.1727677        total: 14.4s    remaining: 32.4s
77:     learn: 0.1720525        total: 14.6s    remaining: 32.2s
78:     learn: 0.1712107        total: 14.8s    remaining: 32s
79:     learn: 0.1702947        total: 15s      remaining: 31.8s
80:     learn: 0.1696264        total: 15.2s    remaining: 31.6s
81:     learn: 0.1688169        total: 15.3s    remaining: 31.4s
82:     learn: 0.1679762        total: 15.5s    remaining: 31.2s
83:     learn: 0.1673636        total: 15.7s    remaining: 31s
84:     learn: 0.1665616        total: 15.9s    remaining: 30.9s
85:     learn: 0.1656774        total: 16.1s    remaining: 30.7s
86:     learn: 0.1647878        total: 16.3s    remaining: 30.5s
87:     learn: 0.1640904        total: 16.5s    remaining: 30.3s
88:     learn: 0.1633866        total: 16.6s    remaining: 30.1s
89:     learn: 0.1626482        total: 16.8s    remaining: 29.9s
90:     learn: 0.1616929        total: 17s      remaining: 29.8s
91:     learn: 0.1610839        total: 17.2s    remaining: 29.5s
92:     learn: 0.1603069        total: 17.4s    remaining: 29.4s
93:     learn: 0.1594854        total: 17.6s    remaining: 29.2s
94:     learn: 0.1586222        total: 17.8s    remaining: 29s
95:     learn: 0.1578035        total: 18s      remaining: 28.9s
96:     learn: 0.1569658        total: 18.2s    remaining: 28.7s
97:     learn: 0.1563502        total: 18.4s    remaining: 28.5s
98:     learn: 0.1557049        total: 18.6s    remaining: 28.3s
99:     learn: 0.1549722        total: 18.7s    remaining: 28.1s
100:    learn: 0.1541888        total: 18.9s    remaining: 27.9s
101:    learn: 0.1535276        total: 19.1s    remaining: 27.7s
102:    learn: 0.1527504        total: 19.3s    remaining: 27.6s
103:    learn: 0.1520982        total: 19.5s    remaining: 27.4s
104:    learn: 0.1514067        total: 19.7s    remaining: 27.2s
105:    learn: 0.1506065        total: 19.9s    remaining: 27s
106:    learn: 0.1499348        total: 20.1s    remaining: 26.8s
107:    learn: 0.1492341        total: 20.2s    remaining: 26.6s
108:    learn: 0.1484826        total: 20.4s    remaining: 26.4s
109:    learn: 0.1478366        total: 20.6s    remaining: 26.2s
110:    learn: 0.1469978        total: 20.8s    remaining: 26.1s
111:    learn: 0.1465209        total: 21s      remaining: 25.9s
112:    learn: 0.1458897        total: 21.2s    remaining: 25.7s
113:    learn: 0.1452644        total: 21.4s    remaining: 25.5s
114:    learn: 0.1448509        total: 21.5s    remaining: 25.3s
115:    learn: 0.1444213        total: 21.7s    remaining: 25.1s
116:    learn: 0.1438567        total: 21.9s    remaining: 24.9s
117:    learn: 0.1431281        total: 22.1s    remaining: 24.7s
118:    learn: 0.1424331        total: 22.3s    remaining: 24.5s
119:    learn: 0.1417146        total: 22.5s    remaining: 24.3s
120:    learn: 0.1412248        total: 22.6s    remaining: 24.1s
121:    learn: 0.1405766        total: 22.8s    remaining: 23.9s
122:    learn: 0.1401070        total: 23s      remaining: 23.7s
123:    learn: 0.1394499        total: 23.2s    remaining: 23.5s
124:    learn: 0.1389886        total: 23.3s    remaining: 23.3s
125:    learn: 0.1386782        total: 23.5s    remaining: 23.1s
126:    learn: 0.1381903        total: 23.7s    remaining: 22.9s
127:    learn: 0.1376420        total: 23.9s    remaining: 22.8s
128:    learn: 0.1371412        total: 24.1s    remaining: 22.6s
129:    learn: 0.1366805        total: 24.2s    remaining: 22.4s
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130:    learn: 0.1360702        total: 24.4s    remaining: 22.2s
131:    learn: 0.1355939        total: 24.6s    remaining: 22s
132:    learn: 0.1350008        total: 24.8s    remaining: 21.8s
133:    learn: 0.1345487        total: 25s      remaining: 21.6s
134:    learn: 0.1341061        total: 25.1s    remaining: 21.4s
135:    learn: 0.1335584        total: 25.3s    remaining: 21.2s
136:    learn: 0.1328795        total: 25.5s    remaining: 21s
137:    learn: 0.1325465        total: 25.7s    remaining: 20.8s
138:    learn: 0.1321911        total: 25.8s    remaining: 20.6s
139:    learn: 0.1316646        total: 26s      remaining: 20.4s
140:    learn: 0.1310962        total: 26.2s    remaining: 20.3s
141:    learn: 0.1305770        total: 26.4s    remaining: 20.1s
142:    learn: 0.1300454        total: 26.6s    remaining: 19.9s
143:    learn: 0.1297226        total: 26.7s    remaining: 19.7s
144:    learn: 0.1292337        total: 26.9s    remaining: 19.5s
145:    learn: 0.1288407        total: 27.1s    remaining: 19.3s
146:    learn: 0.1284986        total: 27.3s    remaining: 19.1s
147:    learn: 0.1280165        total: 27.4s    remaining: 18.9s
148:    learn: 0.1274813        total: 27.6s    remaining: 18.7s
149:    learn: 0.1270485        total: 27.8s    remaining: 18.5s
150:    learn: 0.1264279        total: 28s      remaining: 18.3s
151:    learn: 0.1260357        total: 28.2s    remaining: 18.1s
152:    learn: 0.1256495        total: 28.3s    remaining: 18s
153:    learn: 0.1251326        total: 28.5s    remaining: 17.8s
154:    learn: 0.1245179        total: 28.7s    remaining: 17.6s
155:    learn: 0.1238789        total: 28.9s    remaining: 17.4s
156:    learn: 0.1235206        total: 29.1s    remaining: 17.2s
157:    learn: 0.1231243        total: 29.3s    remaining: 17s
158:    learn: 0.1224990        total: 29.5s    remaining: 16.9s
159:    learn: 0.1220885        total: 29.7s    remaining: 16.7s
160:    learn: 0.1216025        total: 29.9s    remaining: 16.6s
161:    learn: 0.1211428        total: 30.2s    remaining: 16.4s
162:    learn: 0.1206545        total: 30.4s    remaining: 16.2s
163:    learn: 0.1201776        total: 30.6s    remaining: 16s
164:    learn: 0.1197389        total: 30.8s    remaining: 15.9s
165:    learn: 0.1192715        total: 31s      remaining: 15.7s
166:    learn: 0.1186973        total: 31.2s    remaining: 15.5s
167:    learn: 0.1182618        total: 31.3s    remaining: 15.3s
168:    learn: 0.1178339        total: 31.5s    remaining: 15.1s
169:    learn: 0.1173095        total: 31.7s    remaining: 14.9s
170:    learn: 0.1168726        total: 31.9s    remaining: 14.7s
171:    learn: 0.1164593        total: 32.1s    remaining: 14.5s
172:    learn: 0.1160835        total: 32.3s    remaining: 14.4s
173:    learn: 0.1156808        total: 32.4s    remaining: 14.2s
174:    learn: 0.1152521        total: 32.6s    remaining: 14s
175:    learn: 0.1147263        total: 32.8s    remaining: 13.8s
176:    learn: 0.1141547        total: 33s      remaining: 13.6s
177:    learn: 0.1137466        total: 33.2s    remaining: 13.4s
178:    learn: 0.1133935        total: 33.4s    remaining: 13.2s
179:    learn: 0.1129915        total: 33.6s    remaining: 13.1s
180:    learn: 0.1125939        total: 33.8s    remaining: 12.9s
181:    learn: 0.1122464        total: 33.9s    remaining: 12.7s
182:    learn: 0.1117997        total: 34.1s    remaining: 12.5s
183:    learn: 0.1115842        total: 34.3s    remaining: 12.3s
184:    learn: 0.1112794        total: 34.4s    remaining: 12.1s
185:    learn: 0.1107474        total: 34.6s    remaining: 11.9s
186:    learn: 0.1103533        total: 34.8s    remaining: 11.7s
187:    learn: 0.1099702        total: 35s      remaining: 11.5s
188:    learn: 0.1095358        total: 35.2s    remaining: 11.4s
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189:    learn: 0.1092324        total: 35.3s    remaining: 11.2s
190:    learn: 0.1087529        total: 35.5s    remaining: 11s
191:    learn: 0.1084466        total: 35.7s    remaining: 10.8s
192:    learn: 0.1081436        total: 35.9s    remaining: 10.6s
193:    learn: 0.1077388        total: 36.1s    remaining: 10.4s
194:    learn: 0.1072915        total: 36.3s    remaining: 10.2s
195:    learn: 0.1069723        total: 36.4s    remaining: 10s
196:    learn: 0.1066916        total: 36.6s    remaining: 9.85s
197:    learn: 0.1064628        total: 36.8s    remaining: 9.66s
198:    learn: 0.1060598        total: 37s      remaining: 9.47s
199:    learn: 0.1056204        total: 37.1s    remaining: 9.29s
200:    learn: 0.1053748        total: 37.3s    remaining: 9.1s
201:    learn: 0.1050415        total: 37.5s    remaining: 8.91s
202:    learn: 0.1046931        total: 37.7s    remaining: 8.72s
203:    learn: 0.1044194        total: 37.9s    remaining: 8.53s
204:    learn: 0.1039906        total: 38s      remaining: 8.35s
205:    learn: 0.1036809        total: 38.2s    remaining: 8.16s
206:    learn: 0.1033435        total: 38.4s    remaining: 7.98s
207:    learn: 0.1030922        total: 38.6s    remaining: 7.79s
208:    learn: 0.1027909        total: 38.8s    remaining: 7.6s
209:    learn: 0.1025006        total: 38.9s    remaining: 7.42s
210:    learn: 0.1020909        total: 39.1s    remaining: 7.23s
211:    learn: 0.1016780        total: 39.3s    remaining: 7.04s
212:    learn: 0.1014448        total: 39.5s    remaining: 6.86s
213:    learn: 0.1009961        total: 39.7s    remaining: 6.67s
214:    learn: 0.1006468        total: 39.8s    remaining: 6.48s
215:    learn: 0.1002821        total: 40s      remaining: 6.3s
216:    learn: 0.0999289        total: 40.2s    remaining: 6.11s
217:    learn: 0.0994969        total: 40.4s    remaining: 5.93s
218:    learn: 0.0992555        total: 40.5s    remaining: 5.74s
219:    learn: 0.0988039        total: 40.7s    remaining: 5.55s
220:    learn: 0.0985407        total: 40.9s    remaining: 5.37s
221:    learn: 0.0981585        total: 41.1s    remaining: 5.18s
222:    learn: 0.0978433        total: 41.3s    remaining: 5s
223:    learn: 0.0975972        total: 41.5s    remaining: 4.81s
224:    learn: 0.0972216        total: 41.6s    remaining: 4.63s
225:    learn: 0.0969026        total: 41.8s    remaining: 4.44s
226:    learn: 0.0966885        total: 42s      remaining: 4.25s
227:    learn: 0.0964084        total: 42.2s    remaining: 4.07s
228:    learn: 0.0960956        total: 42.3s    remaining: 3.88s
229:    learn: 0.0957790        total: 42.5s    remaining: 3.7s
230:    learn: 0.0955641        total: 42.7s    remaining: 3.51s
231:    learn: 0.0952422        total: 42.8s    remaining: 3.32s
232:    learn: 0.0948787        total: 43s      remaining: 3.14s
233:    learn: 0.0945702        total: 43.2s    remaining: 2.96s
234:    learn: 0.0942655        total: 43.4s    remaining: 2.77s
235:    learn: 0.0939295        total: 43.6s    remaining: 2.58s
236:    learn: 0.0935657        total: 43.8s    remaining: 2.4s
237:    learn: 0.0931663        total: 43.9s    remaining: 2.21s
238:    learn: 0.0929382        total: 44.1s    remaining: 2.03s
239:    learn: 0.0925837        total: 44.3s    remaining: 1.84s
240:    learn: 0.0922217        total: 44.5s    remaining: 1.66s
241:    learn: 0.0920275        total: 44.6s    remaining: 1.48s
242:    learn: 0.0917616        total: 44.8s    remaining: 1.29s
243:    learn: 0.0914282        total: 45s      remaining: 1.11s
244:    learn: 0.0912336        total: 45.2s    remaining: 922ms
245:    learn: 0.0909431        total: 45.4s    remaining: 738ms
246:    learn: 0.0905886        total: 45.6s    remaining: 554ms
247:    learn: 0.0904177        total: 45.8s    remaining: 369ms
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248:    learn: 0.0901631        total: 46s      remaining: 185ms
249:    learn: 0.0898643        total: 46.2s    remaining: 0us
[CV]  learning_rate=0.3, l2_leaf_reg=5, iterations=250, depth=9, ctr_bor
der_count=5, border_count=50, score=0.8702315090826069, total=  53.2s
[CV] learning_rate=0.3, l2_leaf_reg=5, iterations=250, depth=9, ctr_bord
er_count=5, border_count=50
0:      learn: 0.4767828        total: 200ms    remaining: 49.7s
1:      learn: 0.3838955        total: 433ms    remaining: 53.7s
2:      learn: 0.3374266        total: 712ms    remaining: 58.6s
3:      learn: 0.3147345        total: 1.02s    remaining: 1m 2s
4:      learn: 0.3017419        total: 1.2s     remaining: 58.9s
5:      learn: 0.2930009        total: 1.37s    remaining: 55.9s
6:      learn: 0.2867193        total: 1.55s    remaining: 53.9s
7:      learn: 0.2816003        total: 1.74s    remaining: 52.8s
8:      learn: 0.2763518        total: 1.92s    remaining: 51.4s
9:      learn: 0.2724151        total: 2.08s    remaining: 49.9s
10:     learn: 0.2683709        total: 2.25s    remaining: 48.9s
11:     learn: 0.2648659        total: 2.42s    remaining: 48.1s
12:     learn: 0.2619134        total: 2.59s    remaining: 47.2s
13:     learn: 0.2590075        total: 2.77s    remaining: 46.6s
14:     learn: 0.2563197        total: 2.93s    remaining: 46s
15:     learn: 0.2536788        total: 3.14s    remaining: 45.9s
16:     learn: 0.2506549        total: 3.34s    remaining: 45.8s
17:     learn: 0.2484628        total: 3.52s    remaining: 45.3s
18:     learn: 0.2456585        total: 3.73s    remaining: 45.3s
19:     learn: 0.2430379        total: 3.9s     remaining: 44.8s
20:     learn: 0.2408806        total: 4.07s    remaining: 44.4s
21:     learn: 0.2388870        total: 4.24s    remaining: 44s
22:     learn: 0.2370475        total: 4.43s    remaining: 43.7s
23:     learn: 0.2348099        total: 4.62s    remaining: 43.5s
24:     learn: 0.2328162        total: 4.81s    remaining: 43.3s
25:     learn: 0.2308952        total: 5.01s    remaining: 43.1s
26:     learn: 0.2288364        total: 5.2s     remaining: 43s
27:     learn: 0.2271498        total: 5.43s    remaining: 43.1s
28:     learn: 0.2256770        total: 5.66s    remaining: 43.2s
29:     learn: 0.2238277        total: 5.91s    remaining: 43.3s
30:     learn: 0.2224539        total: 6.1s     remaining: 43.1s
31:     learn: 0.2210827        total: 6.3s     remaining: 42.9s
32:     learn: 0.2195260        total: 6.49s    remaining: 42.7s
33:     learn: 0.2180250        total: 6.69s    remaining: 42.5s
34:     learn: 0.2165185        total: 6.87s    remaining: 42.2s
35:     learn: 0.2151487        total: 7.04s    remaining: 41.9s
36:     learn: 0.2137375        total: 7.23s    remaining: 41.6s
37:     learn: 0.2125664        total: 7.41s    remaining: 41.3s
38:     learn: 0.2111650        total: 7.58s    remaining: 41s
39:     learn: 0.2095592        total: 7.77s    remaining: 40.8s
40:     learn: 0.2083387        total: 7.95s    remaining: 40.5s
41:     learn: 0.2072707        total: 8.13s    remaining: 40.3s
42:     learn: 0.2059500        total: 8.32s    remaining: 40.1s
43:     learn: 0.2047271        total: 8.5s     remaining: 39.8s
44:     learn: 0.2035823        total: 8.7s     remaining: 39.6s
45:     learn: 0.2022660        total: 8.88s    remaining: 39.4s
46:     learn: 0.2010787        total: 9.07s    remaining: 39.2s
47:     learn: 0.1999597        total: 9.25s    remaining: 38.9s
48:     learn: 0.1987666        total: 9.42s    remaining: 38.7s
49:     learn: 0.1975800        total: 9.59s    remaining: 38.4s
50:     learn: 0.1964516        total: 9.78s    remaining: 38.2s
51:     learn: 0.1951524        total: 9.97s    remaining: 38s
52:     learn: 0.1939528        total: 10.2s    remaining: 37.8s
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53:     learn: 0.1927292        total: 10.4s    remaining: 37.6s
54:     learn: 0.1917465        total: 10.6s    remaining: 37.4s
55:     learn: 0.1908335        total: 10.7s    remaining: 37.1s
56:     learn: 0.1899618        total: 10.9s    remaining: 36.9s
57:     learn: 0.1889419        total: 11.1s    remaining: 36.7s
58:     learn: 0.1879782        total: 11.3s    remaining: 36.5s
59:     learn: 0.1870330        total: 11.5s    remaining: 36.3s
60:     learn: 0.1861021        total: 11.6s    remaining: 36.1s
61:     learn: 0.1853326        total: 11.8s    remaining: 35.8s
62:     learn: 0.1844564        total: 12s      remaining: 35.6s
63:     learn: 0.1835527        total: 12.2s    remaining: 35.4s
64:     learn: 0.1827554        total: 12.3s    remaining: 35.1s
65:     learn: 0.1818768        total: 12.5s    remaining: 34.9s
66:     learn: 0.1811834        total: 12.7s    remaining: 34.6s
67:     learn: 0.1802093        total: 12.9s    remaining: 34.4s
68:     learn: 0.1794664        total: 13s      remaining: 34.2s
69:     learn: 0.1786735        total: 13.2s    remaining: 34s
70:     learn: 0.1779863        total: 13.4s    remaining: 33.8s
71:     learn: 0.1771819        total: 13.6s    remaining: 33.6s
72:     learn: 0.1761364        total: 13.8s    remaining: 33.4s
73:     learn: 0.1752806        total: 14s      remaining: 33.2s
74:     learn: 0.1743741        total: 14.2s    remaining: 33s
75:     learn: 0.1734956        total: 14.3s    remaining: 32.9s
76:     learn: 0.1726396        total: 14.5s    remaining: 32.6s
77:     learn: 0.1717970        total: 14.7s    remaining: 32.4s
78:     learn: 0.1709943        total: 14.9s    remaining: 32.2s
79:     learn: 0.1702616        total: 15.1s    remaining: 32s
80:     learn: 0.1694839        total: 15.3s    remaining: 31.8s
81:     learn: 0.1687173        total: 15.4s    remaining: 31.6s
82:     learn: 0.1678615        total: 15.6s    remaining: 31.4s
83:     learn: 0.1671692        total: 15.8s    remaining: 31.2s
84:     learn: 0.1664534        total: 16s      remaining: 31s
85:     learn: 0.1656438        total: 16.2s    remaining: 30.9s
86:     learn: 0.1649115        total: 16.4s    remaining: 30.7s
87:     learn: 0.1642721        total: 16.6s    remaining: 30.5s
88:     learn: 0.1636669        total: 16.8s    remaining: 30.3s
89:     learn: 0.1630453        total: 16.9s    remaining: 30.1s
90:     learn: 0.1623930        total: 17.1s    remaining: 29.9s
91:     learn: 0.1616316        total: 17.3s    remaining: 29.7s
92:     learn: 0.1608347        total: 17.5s    remaining: 29.5s
93:     learn: 0.1601803        total: 17.7s    remaining: 29.3s
94:     learn: 0.1595202        total: 17.9s    remaining: 29.1s
95:     learn: 0.1588408        total: 18.1s    remaining: 29s
96:     learn: 0.1582384        total: 18.2s    remaining: 28.8s
97:     learn: 0.1574654        total: 18.4s    remaining: 28.6s
98:     learn: 0.1570628        total: 18.6s    remaining: 28.4s
99:     learn: 0.1562430        total: 18.8s    remaining: 28.2s
100:    learn: 0.1554657        total: 19s      remaining: 28s
101:    learn: 0.1550004        total: 19.1s    remaining: 27.8s
102:    learn: 0.1543356        total: 19.3s    remaining: 27.6s
103:    learn: 0.1538076        total: 19.5s    remaining: 27.4s
104:    learn: 0.1532710        total: 19.7s    remaining: 27.2s
105:    learn: 0.1526868        total: 19.9s    remaining: 27s
106:    learn: 0.1519763        total: 20s      remaining: 26.8s
107:    learn: 0.1513377        total: 20.2s    remaining: 26.6s
108:    learn: 0.1509767        total: 20.4s    remaining: 26.4s
109:    learn: 0.1503145        total: 20.6s    remaining: 26.2s
110:    learn: 0.1495372        total: 20.8s    remaining: 26s
111:    learn: 0.1490033        total: 20.9s    remaining: 25.8s
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112:    learn: 0.1484996        total: 21.1s    remaining: 25.6s
113:    learn: 0.1479123        total: 21.3s    remaining: 25.5s
114:    learn: 0.1473394        total: 21.6s    remaining: 25.3s
115:    learn: 0.1466590        total: 21.8s    remaining: 25.2s
116:    learn: 0.1463101        total: 22s      remaining: 25s
117:    learn: 0.1457884        total: 22.2s    remaining: 24.9s
118:    learn: 0.1451751        total: 22.4s    remaining: 24.7s
119:    learn: 0.1447712        total: 22.6s    remaining: 24.5s
120:    learn: 0.1441850        total: 22.8s    remaining: 24.3s
121:    learn: 0.1437182        total: 23s      remaining: 24.1s
122:    learn: 0.1432892        total: 23.1s    remaining: 23.9s
123:    learn: 0.1428609        total: 23.3s    remaining: 23.7s
124:    learn: 0.1423724        total: 23.5s    remaining: 23.5s
125:    learn: 0.1420418        total: 23.7s    remaining: 23.3s
126:    learn: 0.1413838        total: 23.8s    remaining: 23.1s
127:    learn: 0.1407544        total: 24s      remaining: 22.9s
128:    learn: 0.1400543        total: 24.2s    remaining: 22.7s
129:    learn: 0.1395678        total: 24.4s    remaining: 22.5s
130:    learn: 0.1390196        total: 24.6s    remaining: 22.3s
131:    learn: 0.1385811        total: 24.8s    remaining: 22.1s
132:    learn: 0.1382360        total: 24.9s    remaining: 21.9s
133:    learn: 0.1377471        total: 25.1s    remaining: 21.7s
134:    learn: 0.1370499        total: 25.3s    remaining: 21.6s
135:    learn: 0.1363602        total: 25.5s    remaining: 21.4s
136:    learn: 0.1359215        total: 25.7s    remaining: 21.2s
137:    learn: 0.1355387        total: 25.8s    remaining: 21s
138:    learn: 0.1350586        total: 26s      remaining: 20.8s
139:    learn: 0.1345077        total: 26.2s    remaining: 20.6s
140:    learn: 0.1339498        total: 26.4s    remaining: 20.4s
141:    learn: 0.1335526        total: 26.6s    remaining: 20.2s
142:    learn: 0.1330743        total: 26.7s    remaining: 20s
143:    learn: 0.1326451        total: 26.9s    remaining: 19.8s
144:    learn: 0.1322878        total: 27.1s    remaining: 19.6s
145:    learn: 0.1316630        total: 27.3s    remaining: 19.4s
146:    learn: 0.1311539        total: 27.5s    remaining: 19.3s
147:    learn: 0.1307274        total: 27.7s    remaining: 19.1s
148:    learn: 0.1302482        total: 27.8s    remaining: 18.9s
149:    learn: 0.1296771        total: 28s      remaining: 18.7s
150:    learn: 0.1292562        total: 28.2s    remaining: 18.5s
151:    learn: 0.1286883        total: 28.4s    remaining: 18.3s
152:    learn: 0.1283227        total: 28.6s    remaining: 18.1s
153:    learn: 0.1278092        total: 28.8s    remaining: 17.9s
154:    learn: 0.1272761        total: 29s      remaining: 17.8s
155:    learn: 0.1269729        total: 29.2s    remaining: 17.6s
156:    learn: 0.1265287        total: 29.3s    remaining: 17.4s
157:    learn: 0.1260876        total: 29.5s    remaining: 17.2s
158:    learn: 0.1255918        total: 29.7s    remaining: 17s
159:    learn: 0.1252187        total: 29.9s    remaining: 16.8s
160:    learn: 0.1248288        total: 30.1s    remaining: 16.6s
161:    learn: 0.1242773        total: 30.3s    remaining: 16.5s
162:    learn: 0.1239224        total: 30.5s    remaining: 16.3s
163:    learn: 0.1235188        total: 30.7s    remaining: 16.1s
164:    learn: 0.1229128        total: 30.9s    remaining: 15.9s
165:    learn: 0.1224862        total: 31.1s    remaining: 15.7s
166:    learn: 0.1220338        total: 31.2s    remaining: 15.5s
167:    learn: 0.1215657        total: 31.4s    remaining: 15.3s
168:    learn: 0.1211150        total: 31.6s    remaining: 15.2s
169:    learn: 0.1205813        total: 31.8s    remaining: 15s
170:    learn: 0.1200940        total: 32s      remaining: 14.8s
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171:    learn: 0.1193854        total: 32.2s    remaining: 14.6s
172:    learn: 0.1190476        total: 32.4s    remaining: 14.4s
173:    learn: 0.1187332        total: 32.6s    remaining: 14.2s
174:    learn: 0.1183379        total: 32.7s    remaining: 14s
175:    learn: 0.1180132        total: 32.9s    remaining: 13.8s
176:    learn: 0.1177912        total: 33.1s    remaining: 13.6s
177:    learn: 0.1173311        total: 33.3s    remaining: 13.5s
178:    learn: 0.1168003        total: 33.4s    remaining: 13.3s
179:    learn: 0.1163342        total: 33.6s    remaining: 13.1s
180:    learn: 0.1159643        total: 33.8s    remaining: 12.9s
181:    learn: 0.1155599        total: 34s      remaining: 12.7s
182:    learn: 0.1151024        total: 34.2s    remaining: 12.5s
183:    learn: 0.1146570        total: 34.4s    remaining: 12.3s
184:    learn: 0.1143271        total: 34.5s    remaining: 12.1s
185:    learn: 0.1139705        total: 34.7s    remaining: 11.9s
186:    learn: 0.1135674        total: 34.9s    remaining: 11.7s
187:    learn: 0.1130310        total: 35.1s    remaining: 11.6s
188:    learn: 0.1127293        total: 35.2s    remaining: 11.4s
189:    learn: 0.1124465        total: 35.4s    remaining: 11.2s
190:    learn: 0.1121008        total: 35.6s    remaining: 11s
191:    learn: 0.1117430        total: 35.7s    remaining: 10.8s
192:    learn: 0.1113224        total: 35.9s    remaining: 10.6s
193:    learn: 0.1109723        total: 36.1s    remaining: 10.4s
194:    learn: 0.1106658        total: 36.3s    remaining: 10.2s
195:    learn: 0.1102728        total: 36.4s    remaining: 10s
196:    learn: 0.1098033        total: 36.6s    remaining: 9.85s
197:    learn: 0.1093578        total: 36.8s    remaining: 9.67s
198:    learn: 0.1088399        total: 37s      remaining: 9.48s
199:    learn: 0.1085130        total: 37.2s    remaining: 9.29s
200:    learn: 0.1082182        total: 37.4s    remaining: 9.12s
201:    learn: 0.1078538        total: 37.6s    remaining: 8.94s
202:    learn: 0.1074994        total: 37.9s    remaining: 8.76s
203:    learn: 0.1069693        total: 38.1s    remaining: 8.6s
204:    learn: 0.1064669        total: 38.3s    remaining: 8.41s
205:    learn: 0.1061494        total: 38.5s    remaining: 8.22s
206:    learn: 0.1059364        total: 38.7s    remaining: 8.03s
207:    learn: 0.1057036        total: 38.8s    remaining: 7.84s
208:    learn: 0.1054138        total: 39s      remaining: 7.65s
209:    learn: 0.1051052        total: 39.2s    remaining: 7.46s
210:    learn: 0.1047405        total: 39.4s    remaining: 7.28s
211:    learn: 0.1043079        total: 39.6s    remaining: 7.09s
212:    learn: 0.1039871        total: 39.7s    remaining: 6.9s
213:    learn: 0.1034207        total: 39.9s    remaining: 6.72s
214:    learn: 0.1030990        total: 40.1s    remaining: 6.53s
215:    learn: 0.1027692        total: 40.3s    remaining: 6.34s
216:    learn: 0.1024654        total: 40.4s    remaining: 6.15s
217:    learn: 0.1021955        total: 40.6s    remaining: 5.96s
218:    learn: 0.1019695        total: 40.8s    remaining: 5.77s
219:    learn: 0.1015417        total: 41s      remaining: 5.59s
220:    learn: 0.1012500        total: 41.1s    remaining: 5.4s
221:    learn: 0.1007853        total: 41.3s    remaining: 5.21s
222:    learn: 0.1004169        total: 41.5s    remaining: 5.03s
223:    learn: 0.1000775        total: 41.7s    remaining: 4.84s
224:    learn: 0.0997536        total: 41.9s    remaining: 4.65s
225:    learn: 0.0994725        total: 42.1s    remaining: 4.47s
226:    learn: 0.0991963        total: 42.2s    remaining: 4.28s
227:    learn: 0.0989524        total: 42.4s    remaining: 4.09s
228:    learn: 0.0986052        total: 42.6s    remaining: 3.91s
229:    learn: 0.0981980        total: 42.8s    remaining: 3.72s
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230:    learn: 0.0979164        total: 42.9s    remaining: 3.53s
231:    learn: 0.0976241        total: 43.1s    remaining: 3.35s
232:    learn: 0.0972181        total: 43.3s    remaining: 3.16s
233:    learn: 0.0968757        total: 43.5s    remaining: 2.97s
234:    learn: 0.0965385        total: 43.7s    remaining: 2.79s
235:    learn: 0.0962159        total: 43.8s    remaining: 2.6s
236:    learn: 0.0959340        total: 44s      remaining: 2.42s
237:    learn: 0.0956827        total: 44.2s    remaining: 2.23s
238:    learn: 0.0953824        total: 44.4s    remaining: 2.04s
239:    learn: 0.0949940        total: 44.6s    remaining: 1.86s
240:    learn: 0.0946574        total: 44.7s    remaining: 1.67s
241:    learn: 0.0942534        total: 44.9s    remaining: 1.49s
242:    learn: 0.0939368        total: 45.1s    remaining: 1.3s
243:    learn: 0.0935915        total: 45.3s    remaining: 1.11s
244:    learn: 0.0933163        total: 45.5s    remaining: 928ms
245:    learn: 0.0930159        total: 45.7s    remaining: 743ms
246:    learn: 0.0928115        total: 45.8s    remaining: 557ms
247:    learn: 0.0926636        total: 46s      remaining: 371ms
248:    learn: 0.0923219        total: 46.2s    remaining: 185ms
249:    learn: 0.0920521        total: 46.4s    remaining: 0us
[CV]  learning_rate=0.3, l2_leaf_reg=5, iterations=250, depth=9, ctr_bor
der_count=5, border_count=50, score=0.8693966933550195, total=  53.1s
[CV] learning_rate=0.3, l2_leaf_reg=5, iterations=250, depth=9, ctr_bord
er_count=5, border_count=50
0:      learn: 0.4791484        total: 189ms    remaining: 47s
1:      learn: 0.3859719        total: 397ms    remaining: 49.2s
2:      learn: 0.3396688        total: 603ms    remaining: 49.7s
3:      learn: 0.3153173        total: 795ms    remaining: 48.9s
4:      learn: 0.3030565        total: 975ms    remaining: 47.8s
5:      learn: 0.2945879        total: 1.17s    remaining: 47.4s
6:      learn: 0.2879436        total: 1.33s    remaining: 46.3s
7:      learn: 0.2825511        total: 1.5s     remaining: 45.6s
8:      learn: 0.2781903        total: 1.68s    remaining: 44.9s
9:      learn: 0.2742340        total: 1.86s    remaining: 44.6s
10:     learn: 0.2701442        total: 2.03s    remaining: 44s
11:     learn: 0.2669259        total: 2.19s    remaining: 43.5s
12:     learn: 0.2637134        total: 2.37s    remaining: 43.2s
13:     learn: 0.2609340        total: 2.55s    remaining: 43s
14:     learn: 0.2575826        total: 2.73s    remaining: 42.8s
15:     learn: 0.2553005        total: 2.9s     remaining: 42.5s
16:     learn: 0.2527755        total: 3.08s    remaining: 42.3s
17:     learn: 0.2504701        total: 3.26s    remaining: 42s
18:     learn: 0.2479095        total: 3.44s    remaining: 41.8s
19:     learn: 0.2457186        total: 3.62s    remaining: 41.6s
20:     learn: 0.2435257        total: 3.79s    remaining: 41.4s
21:     learn: 0.2412993        total: 3.97s    remaining: 41.1s
22:     learn: 0.2389084        total: 4.17s    remaining: 41.2s
23:     learn: 0.2367855        total: 4.33s    remaining: 40.8s
24:     learn: 0.2349334        total: 4.51s    remaining: 40.6s
25:     learn: 0.2330086        total: 4.7s     remaining: 40.5s
26:     learn: 0.2312944        total: 4.86s    remaining: 40.2s
27:     learn: 0.2296953        total: 5.03s    remaining: 39.9s
28:     learn: 0.2279432        total: 5.21s    remaining: 39.7s
29:     learn: 0.2263344        total: 5.4s     remaining: 39.6s
30:     learn: 0.2245338        total: 5.58s    remaining: 39.4s
31:     learn: 0.2231063        total: 5.76s    remaining: 39.2s
32:     learn: 0.2218371        total: 5.93s    remaining: 39s
33:     learn: 0.2203444        total: 6.11s    remaining: 38.8s
34:     learn: 0.2189634        total: 6.28s    remaining: 38.6s
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35:     learn: 0.2175630        total: 6.49s    remaining: 38.6s
36:     learn: 0.2162548        total: 6.67s    remaining: 38.4s
37:     learn: 0.2149149        total: 6.86s    remaining: 38.3s
38:     learn: 0.2136439        total: 7.03s    remaining: 38s
39:     learn: 0.2120964        total: 7.22s    remaining: 37.9s
40:     learn: 0.2108575        total: 7.39s    remaining: 37.7s
41:     learn: 0.2095237        total: 7.57s    remaining: 37.5s
42:     learn: 0.2081379        total: 7.74s    remaining: 37.3s
43:     learn: 0.2065805        total: 7.94s    remaining: 37.2s
44:     learn: 0.2054108        total: 8.12s    remaining: 37s
45:     learn: 0.2041723        total: 8.3s     remaining: 36.8s
46:     learn: 0.2029785        total: 8.47s    remaining: 36.6s
47:     learn: 0.2017449        total: 8.65s    remaining: 36.4s
48:     learn: 0.2005312        total: 8.84s    remaining: 36.3s
49:     learn: 0.1992199        total: 9.03s    remaining: 36.1s
50:     learn: 0.1979514        total: 9.22s    remaining: 36s
51:     learn: 0.1968876        total: 9.41s    remaining: 35.8s
52:     learn: 0.1955732        total: 9.61s    remaining: 35.7s
53:     learn: 0.1943830        total: 9.8s     remaining: 35.6s
54:     learn: 0.1931969        total: 9.99s    remaining: 35.4s
55:     learn: 0.1920846        total: 10.2s    remaining: 35.2s
56:     learn: 0.1911199        total: 10.4s    remaining: 35.1s
57:     learn: 0.1900980        total: 10.5s    remaining: 34.9s
58:     learn: 0.1891975        total: 10.7s    remaining: 34.7s
59:     learn: 0.1882537        total: 10.9s    remaining: 34.5s
60:     learn: 0.1874207        total: 11.1s    remaining: 34.3s
61:     learn: 0.1865712        total: 11.3s    remaining: 34.2s
62:     learn: 0.1855812        total: 11.4s    remaining: 34s
63:     learn: 0.1845832        total: 11.6s    remaining: 33.8s
64:     learn: 0.1836716        total: 11.8s    remaining: 33.7s
65:     learn: 0.1828306        total: 12s      remaining: 33.5s
66:     learn: 0.1819419        total: 12.2s    remaining: 33.3s
67:     learn: 0.1810427        total: 12.4s    remaining: 33.1s
68:     learn: 0.1800450        total: 12.5s    remaining: 32.9s
69:     learn: 0.1791899        total: 12.7s    remaining: 32.8s
70:     learn: 0.1783136        total: 13s      remaining: 32.7s
71:     learn: 0.1776416        total: 13.2s    remaining: 32.6s
72:     learn: 0.1765756        total: 13.5s    remaining: 32.6s
73:     learn: 0.1757801        total: 13.7s    remaining: 32.5s
74:     learn: 0.1750955        total: 13.9s    remaining: 32.4s
75:     learn: 0.1742257        total: 14.1s    remaining: 32.2s
76:     learn: 0.1735937        total: 14.2s    remaining: 32s
77:     learn: 0.1726695        total: 14.4s    remaining: 31.8s
78:     learn: 0.1719074        total: 14.6s    remaining: 31.6s
79:     learn: 0.1711424        total: 14.8s    remaining: 31.4s
80:     learn: 0.1704233        total: 15s      remaining: 31.2s
81:     learn: 0.1693817        total: 15.2s    remaining: 31s
82:     learn: 0.1685046        total: 15.3s    remaining: 30.9s
83:     learn: 0.1677332        total: 15.5s    remaining: 30.7s
84:     learn: 0.1670819        total: 15.7s    remaining: 30.5s
85:     learn: 0.1663392        total: 15.9s    remaining: 30.3s
86:     learn: 0.1655464        total: 16.1s    remaining: 30.1s
87:     learn: 0.1647056        total: 16.3s    remaining: 30s
88:     learn: 0.1638859        total: 16.5s    remaining: 29.8s
89:     learn: 0.1629470        total: 16.7s    remaining: 29.6s
90:     learn: 0.1621447        total: 16.9s    remaining: 29.5s
91:     learn: 0.1613449        total: 17.1s    remaining: 29.3s
92:     learn: 0.1606185        total: 17.3s    remaining: 29.1s
93:     learn: 0.1600720        total: 17.4s    remaining: 28.9s
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94:     learn: 0.1592979        total: 17.6s    remaining: 28.8s
95:     learn: 0.1586702        total: 17.8s    remaining: 28.6s
96:     learn: 0.1579869        total: 18s      remaining: 28.4s
97:     learn: 0.1573500        total: 18.2s    remaining: 28.2s
98:     learn: 0.1567114        total: 18.3s    remaining: 28s
99:     learn: 0.1561609        total: 18.5s    remaining: 27.8s
100:    learn: 0.1555731        total: 18.7s    remaining: 27.6s
101:    learn: 0.1550328        total: 18.9s    remaining: 27.4s
102:    learn: 0.1543957        total: 19.1s    remaining: 27.2s
103:    learn: 0.1537552        total: 19.2s    remaining: 27s
104:    learn: 0.1531893        total: 19.4s    remaining: 26.8s
105:    learn: 0.1524944        total: 19.6s    remaining: 26.6s
106:    learn: 0.1518826        total: 19.8s    remaining: 26.4s
107:    learn: 0.1514500        total: 19.9s    remaining: 26.2s
108:    learn: 0.1508265        total: 20.1s    remaining: 26s
109:    learn: 0.1501785        total: 20.3s    remaining: 25.9s
110:    learn: 0.1494956        total: 20.5s    remaining: 25.7s
111:    learn: 0.1489326        total: 20.7s    remaining: 25.5s
112:    learn: 0.1481631        total: 20.9s    remaining: 25.3s
113:    learn: 0.1474517        total: 21.1s    remaining: 25.1s
114:    learn: 0.1468684        total: 21.3s    remaining: 25s
115:    learn: 0.1464201        total: 21.4s    remaining: 24.8s
116:    learn: 0.1458695        total: 21.6s    remaining: 24.6s
117:    learn: 0.1450803        total: 21.8s    remaining: 24.4s
118:    learn: 0.1445668        total: 22s      remaining: 24.2s
119:    learn: 0.1439877        total: 22.2s    remaining: 24s
120:    learn: 0.1435998        total: 22.3s    remaining: 23.8s
121:    learn: 0.1429463        total: 22.5s    remaining: 23.6s
122:    learn: 0.1423595        total: 22.7s    remaining: 23.4s
123:    learn: 0.1418154        total: 22.9s    remaining: 23.2s
124:    learn: 0.1411360        total: 23.1s    remaining: 23.1s
125:    learn: 0.1405505        total: 23.3s    remaining: 22.9s
126:    learn: 0.1399429        total: 23.4s    remaining: 22.7s
127:    learn: 0.1394345        total: 23.6s    remaining: 22.5s
128:    learn: 0.1388317        total: 23.8s    remaining: 22.3s
129:    learn: 0.1380696        total: 24s      remaining: 22.2s
130:    learn: 0.1376656        total: 24.2s    remaining: 22s
131:    learn: 0.1370981        total: 24.4s    remaining: 21.8s
132:    learn: 0.1363867        total: 24.6s    remaining: 21.6s
133:    learn: 0.1357760        total: 24.8s    remaining: 21.4s
134:    learn: 0.1353818        total: 24.9s    remaining: 21.2s
135:    learn: 0.1348842        total: 25.1s    remaining: 21.1s
136:    learn: 0.1343875        total: 25.3s    remaining: 20.9s
137:    learn: 0.1337786        total: 25.5s    remaining: 20.7s
138:    learn: 0.1334275        total: 25.7s    remaining: 20.5s
139:    learn: 0.1328222        total: 25.9s    remaining: 20.3s
140:    learn: 0.1322841        total: 26s      remaining: 20.1s
141:    learn: 0.1318156        total: 26.2s    remaining: 19.9s
142:    learn: 0.1313310        total: 26.4s    remaining: 19.8s
143:    learn: 0.1309315        total: 26.6s    remaining: 19.6s
144:    learn: 0.1304834        total: 26.8s    remaining: 19.4s
145:    learn: 0.1300498        total: 26.9s    remaining: 19.2s
146:    learn: 0.1296721        total: 27.1s    remaining: 19s
147:    learn: 0.1289817        total: 27.3s    remaining: 18.8s
148:    learn: 0.1283509        total: 27.5s    remaining: 18.7s
149:    learn: 0.1278883        total: 27.7s    remaining: 18.5s
150:    learn: 0.1274424        total: 27.9s    remaining: 18.3s
151:    learn: 0.1270097        total: 28.1s    remaining: 18.1s
152:    learn: 0.1263570        total: 28.3s    remaining: 17.9s
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153:    learn: 0.1257552        total: 28.5s    remaining: 17.7s
154:    learn: 0.1253823        total: 28.6s    remaining: 17.6s
155:    learn: 0.1248050        total: 28.9s    remaining: 17.4s
156:    learn: 0.1243771        total: 29.1s    remaining: 17.2s
157:    learn: 0.1239134        total: 29.3s    remaining: 17.1s
158:    learn: 0.1234965        total: 29.6s    remaining: 16.9s
159:    learn: 0.1229634        total: 29.8s    remaining: 16.8s
160:    learn: 0.1224118        total: 30s      remaining: 16.6s
161:    learn: 0.1220070        total: 30.2s    remaining: 16.4s
162:    learn: 0.1215769        total: 30.4s    remaining: 16.2s
163:    learn: 0.1209396        total: 30.6s    remaining: 16s
164:    learn: 0.1205621        total: 30.8s    remaining: 15.8s
165:    learn: 0.1202092        total: 30.9s    remaining: 15.6s
166:    learn: 0.1199118        total: 31.1s    remaining: 15.5s
167:    learn: 0.1193274        total: 31.3s    remaining: 15.3s
168:    learn: 0.1190431        total: 31.4s    remaining: 15.1s
169:    learn: 0.1184336        total: 31.7s    remaining: 14.9s
170:    learn: 0.1180723        total: 31.8s    remaining: 14.7s
171:    learn: 0.1176226        total: 32s      remaining: 14.5s
172:    learn: 0.1172831        total: 32.2s    remaining: 14.3s
173:    learn: 0.1167863        total: 32.4s    remaining: 14.1s
174:    learn: 0.1164030        total: 32.6s    remaining: 13.9s
175:    learn: 0.1160412        total: 32.7s    remaining: 13.8s
176:    learn: 0.1157784        total: 32.9s    remaining: 13.6s
177:    learn: 0.1153171        total: 33.1s    remaining: 13.4s
178:    learn: 0.1148197        total: 33.2s    remaining: 13.2s
179:    learn: 0.1144284        total: 33.4s    remaining: 13s
180:    learn: 0.1140228        total: 33.6s    remaining: 12.8s
181:    learn: 0.1137194        total: 33.8s    remaining: 12.6s
182:    learn: 0.1133554        total: 34s      remaining: 12.4s
183:    learn: 0.1128689        total: 34.2s    remaining: 12.3s
184:    learn: 0.1124317        total: 34.3s    remaining: 12.1s
185:    learn: 0.1121665        total: 34.5s    remaining: 11.9s
186:    learn: 0.1119117        total: 34.7s    remaining: 11.7s
187:    learn: 0.1114584        total: 34.9s    remaining: 11.5s
188:    learn: 0.1111208        total: 35s      remaining: 11.3s
189:    learn: 0.1107892        total: 35.2s    remaining: 11.1s
190:    learn: 0.1105005        total: 35.4s    remaining: 10.9s
191:    learn: 0.1102293        total: 35.5s    remaining: 10.7s
192:    learn: 0.1098001        total: 35.7s    remaining: 10.6s
193:    learn: 0.1095479        total: 35.9s    remaining: 10.4s
194:    learn: 0.1092645        total: 36.1s    remaining: 10.2s
195:    learn: 0.1089602        total: 36.3s    remaining: 9.99s
196:    learn: 0.1085251        total: 36.4s    remaining: 9.81s
197:    learn: 0.1081995        total: 36.6s    remaining: 9.62s
198:    learn: 0.1078740        total: 36.8s    remaining: 9.43s
199:    learn: 0.1074648        total: 37s      remaining: 9.24s
200:    learn: 0.1071670        total: 37.2s    remaining: 9.06s
201:    learn: 0.1068791        total: 37.3s    remaining: 8.87s
202:    learn: 0.1063763        total: 37.5s    remaining: 8.69s
203:    learn: 0.1060084        total: 37.7s    remaining: 8.5s
204:    learn: 0.1057285        total: 37.9s    remaining: 8.31s
205:    learn: 0.1054158        total: 38s      remaining: 8.13s
206:    learn: 0.1050048        total: 38.2s    remaining: 7.94s
207:    learn: 0.1046295        total: 38.4s    remaining: 7.76s
208:    learn: 0.1044257        total: 38.6s    remaining: 7.57s
209:    learn: 0.1040214        total: 38.8s    remaining: 7.39s
210:    learn: 0.1037237        total: 38.9s    remaining: 7.2s
211:    learn: 0.1034253        total: 39.1s    remaining: 7.01s
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212:    learn: 0.1030921        total: 39.3s    remaining: 6.83s
213:    learn: 0.1028088        total: 39.5s    remaining: 6.64s
214:    learn: 0.1025776        total: 39.7s    remaining: 6.46s
215:    learn: 0.1023781        total: 39.8s    remaining: 6.27s
216:    learn: 0.1020651        total: 40s      remaining: 6.08s
217:    learn: 0.1017222        total: 40.2s    remaining: 5.89s
218:    learn: 0.1014386        total: 40.3s    remaining: 5.71s
219:    learn: 0.1010217        total: 40.5s    remaining: 5.53s
220:    learn: 0.1007805        total: 40.7s    remaining: 5.34s
221:    learn: 0.1005233        total: 40.9s    remaining: 5.15s
222:    learn: 0.1002157        total: 41s      remaining: 4.97s
223:    learn: 0.0998511        total: 41.2s    remaining: 4.78s
224:    learn: 0.0994927        total: 41.4s    remaining: 4.6s
225:    learn: 0.0989736        total: 41.6s    remaining: 4.42s
226:    learn: 0.0986677        total: 41.7s    remaining: 4.23s
227:    learn: 0.0984116        total: 41.9s    remaining: 4.04s
228:    learn: 0.0980191        total: 42.1s    remaining: 3.86s
229:    learn: 0.0977538        total: 42.3s    remaining: 3.67s
230:    learn: 0.0973968        total: 42.4s    remaining: 3.49s
231:    learn: 0.0970499        total: 42.6s    remaining: 3.31s
232:    learn: 0.0968195        total: 42.8s    remaining: 3.12s
233:    learn: 0.0964678        total: 43s      remaining: 2.94s
234:    learn: 0.0961198        total: 43.2s    remaining: 2.75s
235:    learn: 0.0958346        total: 43.3s    remaining: 2.57s
236:    learn: 0.0955192        total: 43.5s    remaining: 2.39s
237:    learn: 0.0950790        total: 43.7s    remaining: 2.2s
238:    learn: 0.0947202        total: 43.9s    remaining: 2.02s
239:    learn: 0.0943974        total: 44.1s    remaining: 1.84s
240:    learn: 0.0940947        total: 44.2s    remaining: 1.65s
241:    learn: 0.0938206        total: 44.4s    remaining: 1.47s
242:    learn: 0.0935368        total: 44.6s    remaining: 1.28s
243:    learn: 0.0933376        total: 44.8s    remaining: 1.1s
244:    learn: 0.0929763        total: 45.1s    remaining: 920ms
245:    learn: 0.0925575        total: 45.3s    remaining: 737ms
246:    learn: 0.0921511        total: 45.6s    remaining: 553ms
247:    learn: 0.0918276        total: 45.8s    remaining: 369ms
248:    learn: 0.0916166        total: 45.9s    remaining: 184ms
249:    learn: 0.0912631        total: 46.1s    remaining: 0us
[CV]  learning_rate=0.3, l2_leaf_reg=5, iterations=250, depth=9, ctr_bor
der_count=5, border_count=50, score=0.8736747197625729, total=  53.3s
[CV] learning_rate=0.3, l2_leaf_reg=10, iterations=500, depth=10, ctr_bo
rder_count=50, border_count=10
0:      learn: 0.4798546        total: 347ms    remaining: 2m 53s
1:      learn: 0.3851177        total: 724ms    remaining: 3m
2:      learn: 0.3378892        total: 1.08s    remaining: 2m 58s
3:      learn: 0.3150566        total: 1.44s    remaining: 2m 58s
4:      learn: 0.3010769        total: 1.78s    remaining: 2m 56s
5:      learn: 0.2908301        total: 2.12s    remaining: 2m 54s
6:      learn: 0.2837076        total: 2.46s    remaining: 2m 53s
7:      learn: 0.2780996        total: 2.81s    remaining: 2m 52s
8:      learn: 0.2736895        total: 3.15s    remaining: 2m 51s
9:      learn: 0.2700928        total: 3.49s    remaining: 2m 50s
10:     learn: 0.2667114        total: 3.85s    remaining: 2m 51s
11:     learn: 0.2623414        total: 4.2s     remaining: 2m 50s
12:     learn: 0.2593473        total: 4.58s    remaining: 2m 51s
13:     learn: 0.2559079        total: 5.02s    remaining: 2m 54s
14:     learn: 0.2527767        total: 5.46s    remaining: 2m 56s
15:     learn: 0.2495945        total: 5.83s    remaining: 2m 56s
16:     learn: 0.2465759        total: 6.17s    remaining: 2m 55s
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17:     learn: 0.2438244        total: 6.51s    remaining: 2m 54s
18:     learn: 0.2415524        total: 6.86s    remaining: 2m 53s
19:     learn: 0.2393563        total: 7.21s    remaining: 2m 53s
20:     learn: 0.2372225        total: 7.58s    remaining: 2m 52s
21:     learn: 0.2345821        total: 7.96s    remaining: 2m 53s
22:     learn: 0.2321879        total: 8.36s    remaining: 2m 53s
23:     learn: 0.2295365        total: 8.72s    remaining: 2m 52s
24:     learn: 0.2275792        total: 9.09s    remaining: 2m 52s
25:     learn: 0.2255624        total: 9.44s    remaining: 2m 52s
26:     learn: 0.2235233        total: 9.79s    remaining: 2m 51s
27:     learn: 0.2215027        total: 10.1s    remaining: 2m 50s
28:     learn: 0.2195782        total: 10.5s    remaining: 2m 50s
29:     learn: 0.2177669        total: 10.8s    remaining: 2m 49s
30:     learn: 0.2158047        total: 11.2s    remaining: 2m 49s
31:     learn: 0.2137032        total: 11.6s    remaining: 2m 49s
32:     learn: 0.2118135        total: 11.9s    remaining: 2m 48s
33:     learn: 0.2099602        total: 12.2s    remaining: 2m 47s
34:     learn: 0.2080706        total: 12.6s    remaining: 2m 47s
35:     learn: 0.2065193        total: 12.9s    remaining: 2m 46s
36:     learn: 0.2049700        total: 13.3s    remaining: 2m 46s
37:     learn: 0.2029679        total: 13.6s    remaining: 2m 45s
38:     learn: 0.2010801        total: 14s      remaining: 2m 45s
39:     learn: 0.1991170        total: 14.3s    remaining: 2m 44s
40:     learn: 0.1976901        total: 14.7s    remaining: 2m 44s
41:     learn: 0.1961988        total: 15s      remaining: 2m 43s
42:     learn: 0.1944789        total: 15.4s    remaining: 2m 43s
43:     learn: 0.1926980        total: 15.7s    remaining: 2m 43s
44:     learn: 0.1911442        total: 16.1s    remaining: 2m 42s
45:     learn: 0.1896643        total: 16.5s    remaining: 2m 42s
46:     learn: 0.1881601        total: 16.8s    remaining: 2m 42s
47:     learn: 0.1868593        total: 17.2s    remaining: 2m 41s
48:     learn: 0.1852031        total: 17.5s    remaining: 2m 41s
49:     learn: 0.1836429        total: 17.9s    remaining: 2m 40s
50:     learn: 0.1823939        total: 18.2s    remaining: 2m 40s
51:     learn: 0.1809583        total: 18.6s    remaining: 2m 39s
52:     learn: 0.1795263        total: 18.9s    remaining: 2m 39s
53:     learn: 0.1783284        total: 19.3s    remaining: 2m 39s
54:     learn: 0.1771719        total: 19.6s    remaining: 2m 38s
55:     learn: 0.1756566        total: 19.9s    remaining: 2m 38s
56:     learn: 0.1742886        total: 20.3s    remaining: 2m 37s
57:     learn: 0.1729951        total: 20.7s    remaining: 2m 37s
58:     learn: 0.1714629        total: 21.1s    remaining: 2m 37s
59:     learn: 0.1703748        total: 21.5s    remaining: 2m 37s
60:     learn: 0.1689881        total: 21.9s    remaining: 2m 37s
61:     learn: 0.1678447        total: 22.2s    remaining: 2m 37s
62:     learn: 0.1665775        total: 22.6s    remaining: 2m 36s
63:     learn: 0.1656648        total: 22.9s    remaining: 2m 36s
64:     learn: 0.1644648        total: 23.3s    remaining: 2m 35s
65:     learn: 0.1632299        total: 23.6s    remaining: 2m 35s
66:     learn: 0.1620600        total: 24s      remaining: 2m 35s
67:     learn: 0.1606628        total: 24.3s    remaining: 2m 34s
68:     learn: 0.1597673        total: 24.7s    remaining: 2m 34s
69:     learn: 0.1584505        total: 25s      remaining: 2m 33s
70:     learn: 0.1574385        total: 25.4s    remaining: 2m 33s
71:     learn: 0.1560611        total: 25.7s    remaining: 2m 32s
72:     learn: 0.1548860        total: 26.1s    remaining: 2m 32s
73:     learn: 0.1538699        total: 26.4s    remaining: 2m 32s
74:     learn: 0.1527074        total: 26.8s    remaining: 2m 31s
75:     learn: 0.1517235        total: 27.1s    remaining: 2m 31s
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76:     learn: 0.1507798        total: 27.5s    remaining: 2m 30s
77:     learn: 0.1496310        total: 27.8s    remaining: 2m 30s
78:     learn: 0.1486532        total: 28.2s    remaining: 2m 30s
79:     learn: 0.1476066        total: 28.5s    remaining: 2m 29s
80:     learn: 0.1464788        total: 28.9s    remaining: 2m 29s
81:     learn: 0.1454381        total: 29.2s    remaining: 2m 28s
82:     learn: 0.1443600        total: 29.6s    remaining: 2m 28s
83:     learn: 0.1433947        total: 29.9s    remaining: 2m 28s
84:     learn: 0.1423839        total: 30.3s    remaining: 2m 27s
85:     learn: 0.1412919        total: 30.6s    remaining: 2m 27s
86:     learn: 0.1404362        total: 31s      remaining: 2m 26s
87:     learn: 0.1397225        total: 31.3s    remaining: 2m 26s
88:     learn: 0.1390082        total: 31.6s    remaining: 2m 26s
89:     learn: 0.1380805        total: 32s      remaining: 2m 25s
90:     learn: 0.1373213        total: 32.3s    remaining: 2m 25s
91:     learn: 0.1361060        total: 32.7s    remaining: 2m 24s
92:     learn: 0.1351528        total: 33s      remaining: 2m 24s
93:     learn: 0.1342429        total: 33.4s    remaining: 2m 24s
94:     learn: 0.1333956        total: 33.7s    remaining: 2m 23s
95:     learn: 0.1323039        total: 34.1s    remaining: 2m 23s
96:     learn: 0.1313609        total: 34.4s    remaining: 2m 23s
97:     learn: 0.1304442        total: 34.8s    remaining: 2m 22s
98:     learn: 0.1297292        total: 35.1s    remaining: 2m 22s
99:     learn: 0.1288803        total: 35.5s    remaining: 2m 21s
100:    learn: 0.1280573        total: 35.8s    remaining: 2m 21s
101:    learn: 0.1271428        total: 36.2s    remaining: 2m 21s
102:    learn: 0.1262506        total: 36.5s    remaining: 2m 20s
103:    learn: 0.1254945        total: 37s      remaining: 2m 20s
104:    learn: 0.1247912        total: 37.4s    remaining: 2m 20s
105:    learn: 0.1239144        total: 37.8s    remaining: 2m 20s
106:    learn: 0.1229362        total: 38.1s    remaining: 2m 20s
107:    learn: 0.1222271        total: 38.5s    remaining: 2m 19s
108:    learn: 0.1213963        total: 38.8s    remaining: 2m 19s
109:    learn: 0.1204162        total: 39.2s    remaining: 2m 18s
110:    learn: 0.1197642        total: 39.5s    remaining: 2m 18s
111:    learn: 0.1189554        total: 39.9s    remaining: 2m 18s
112:    learn: 0.1181825        total: 40.2s    remaining: 2m 17s
113:    learn: 0.1172701        total: 40.6s    remaining: 2m 17s
114:    learn: 0.1163307        total: 40.9s    remaining: 2m 16s
115:    learn: 0.1157014        total: 41.3s    remaining: 2m 16s
116:    learn: 0.1149499        total: 41.6s    remaining: 2m 16s
117:    learn: 0.1142428        total: 42s      remaining: 2m 15s
118:    learn: 0.1135971        total: 42.3s    remaining: 2m 15s
119:    learn: 0.1129171        total: 42.7s    remaining: 2m 15s
120:    learn: 0.1122231        total: 43s      remaining: 2m 14s
121:    learn: 0.1114459        total: 43.4s    remaining: 2m 14s
122:    learn: 0.1104121        total: 43.7s    remaining: 2m 13s
123:    learn: 0.1096565        total: 44.1s    remaining: 2m 13s
124:    learn: 0.1089465        total: 44.4s    remaining: 2m 13s
125:    learn: 0.1081471        total: 44.8s    remaining: 2m 12s
126:    learn: 0.1075811        total: 45.1s    remaining: 2m 12s
127:    learn: 0.1070168        total: 45.4s    remaining: 2m 12s
128:    learn: 0.1063758        total: 45.8s    remaining: 2m 11s
129:    learn: 0.1056918        total: 46.1s    remaining: 2m 11s
130:    learn: 0.1051198        total: 46.5s    remaining: 2m 10s
131:    learn: 0.1045485        total: 46.8s    remaining: 2m 10s
132:    learn: 0.1038323        total: 47.2s    remaining: 2m 10s
133:    learn: 0.1032798        total: 47.5s    remaining: 2m 9s
134:    learn: 0.1025681        total: 47.9s    remaining: 2m 9s
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135:    learn: 0.1018524        total: 48.2s    remaining: 2m 9s
136:    learn: 0.1010077        total: 48.6s    remaining: 2m 8s
137:    learn: 0.1002268        total: 48.9s    remaining: 2m 8s
138:    learn: 0.0996058        total: 49.3s    remaining: 2m 7s
139:    learn: 0.0989309        total: 49.6s    remaining: 2m 7s
140:    learn: 0.0983533        total: 50s      remaining: 2m 7s
141:    learn: 0.0977175        total: 50.3s    remaining: 2m 6s
142:    learn: 0.0970461        total: 50.7s    remaining: 2m 6s
143:    learn: 0.0965180        total: 51s      remaining: 2m 6s
144:    learn: 0.0960452        total: 51.3s    remaining: 2m 5s
145:    learn: 0.0954153        total: 51.7s    remaining: 2m 5s
146:    learn: 0.0948297        total: 52s      remaining: 2m 4s
147:    learn: 0.0942874        total: 52.4s    remaining: 2m 4s
148:    learn: 0.0936576        total: 52.8s    remaining: 2m 4s
149:    learn: 0.0932736        total: 53.2s    remaining: 2m 4s
150:    learn: 0.0926624        total: 53.6s    remaining: 2m 3s
151:    learn: 0.0921292        total: 54s      remaining: 2m 3s
152:    learn: 0.0916217        total: 54.3s    remaining: 2m 3s
153:    learn: 0.0911569        total: 54.7s    remaining: 2m 2s
154:    learn: 0.0904863        total: 55s      remaining: 2m 2s
155:    learn: 0.0899592        total: 55.4s    remaining: 2m 2s
156:    learn: 0.0892146        total: 55.7s    remaining: 2m 1s
157:    learn: 0.0884810        total: 56.1s    remaining: 2m 1s
158:    learn: 0.0879707        total: 56.4s    remaining: 2m 1s
159:    learn: 0.0873308        total: 56.8s    remaining: 2m
160:    learn: 0.0868146        total: 57.1s    remaining: 2m
161:    learn: 0.0863088        total: 57.5s    remaining: 1m 59s
162:    learn: 0.0857741        total: 57.8s    remaining: 1m 59s
163:    learn: 0.0853057        total: 58.2s    remaining: 1m 59s
164:    learn: 0.0849114        total: 58.5s    remaining: 1m 58s
165:    learn: 0.0843268        total: 58.9s    remaining: 1m 58s
166:    learn: 0.0838674        total: 59.2s    remaining: 1m 58s
167:    learn: 0.0833108        total: 59.5s    remaining: 1m 57s
168:    learn: 0.0829177        total: 59.9s    remaining: 1m 57s
169:    learn: 0.0824148        total: 1m       remaining: 1m 56s
170:    learn: 0.0821069        total: 1m       remaining: 1m 56s
171:    learn: 0.0817981        total: 1m       remaining: 1m 56s
172:    learn: 0.0812214        total: 1m 1s    remaining: 1m 55s
173:    learn: 0.0805133        total: 1m 1s    remaining: 1m 55s
174:    learn: 0.0800817        total: 1m 1s    remaining: 1m 55s
175:    learn: 0.0797385        total: 1m 2s    remaining: 1m 54s
176:    learn: 0.0793413        total: 1m 2s    remaining: 1m 54s
177:    learn: 0.0789497        total: 1m 3s    remaining: 1m 53s
178:    learn: 0.0785072        total: 1m 3s    remaining: 1m 53s
179:    learn: 0.0780164        total: 1m 3s    remaining: 1m 53s
180:    learn: 0.0774219        total: 1m 4s    remaining: 1m 52s
181:    learn: 0.0771722        total: 1m 4s    remaining: 1m 52s
182:    learn: 0.0767790        total: 1m 4s    remaining: 1m 52s
183:    learn: 0.0763213        total: 1m 5s    remaining: 1m 51s
184:    learn: 0.0759919        total: 1m 5s    remaining: 1m 51s
185:    learn: 0.0756241        total: 1m 5s    remaining: 1m 51s
186:    learn: 0.0750954        total: 1m 6s    remaining: 1m 50s
187:    learn: 0.0746024        total: 1m 6s    remaining: 1m 50s
188:    learn: 0.0742418        total: 1m 6s    remaining: 1m 49s
189:    learn: 0.0738338        total: 1m 7s    remaining: 1m 49s
190:    learn: 0.0733942        total: 1m 7s    remaining: 1m 49s
191:    learn: 0.0728967        total: 1m 7s    remaining: 1m 48s
192:    learn: 0.0725822        total: 1m 8s    remaining: 1m 48s
193:    learn: 0.0720906        total: 1m 8s    remaining: 1m 48s
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194:    learn: 0.0717871        total: 1m 9s    remaining: 1m 47s
195:    learn: 0.0712560        total: 1m 9s    remaining: 1m 47s
196:    learn: 0.0709841        total: 1m 9s    remaining: 1m 47s
197:    learn: 0.0705939        total: 1m 10s   remaining: 1m 47s
198:    learn: 0.0702597        total: 1m 10s   remaining: 1m 46s
199:    learn: 0.0697212        total: 1m 10s   remaining: 1m 46s
200:    learn: 0.0693053        total: 1m 11s   remaining: 1m 45s
201:    learn: 0.0687786        total: 1m 11s   remaining: 1m 45s
202:    learn: 0.0682325        total: 1m 11s   remaining: 1m 45s
203:    learn: 0.0679191        total: 1m 12s   remaining: 1m 44s
204:    learn: 0.0676041        total: 1m 12s   remaining: 1m 44s
205:    learn: 0.0670419        total: 1m 12s   remaining: 1m 44s
206:    learn: 0.0667090        total: 1m 13s   remaining: 1m 43s
207:    learn: 0.0663837        total: 1m 13s   remaining: 1m 43s
208:    learn: 0.0660164        total: 1m 13s   remaining: 1m 43s
209:    learn: 0.0657331        total: 1m 14s   remaining: 1m 42s
210:    learn: 0.0653348        total: 1m 14s   remaining: 1m 42s
211:    learn: 0.0648876        total: 1m 15s   remaining: 1m 41s
212:    learn: 0.0644668        total: 1m 15s   remaining: 1m 41s
213:    learn: 0.0641484        total: 1m 15s   remaining: 1m 41s
214:    learn: 0.0639039        total: 1m 16s   remaining: 1m 40s
215:    learn: 0.0635994        total: 1m 16s   remaining: 1m 40s
216:    learn: 0.0631977        total: 1m 16s   remaining: 1m 40s
217:    learn: 0.0628127        total: 1m 17s   remaining: 1m 39s
218:    learn: 0.0624225        total: 1m 17s   remaining: 1m 39s
219:    learn: 0.0621647        total: 1m 17s   remaining: 1m 39s
220:    learn: 0.0618655        total: 1m 18s   remaining: 1m 38s
221:    learn: 0.0615151        total: 1m 18s   remaining: 1m 38s
222:    learn: 0.0611357        total: 1m 18s   remaining: 1m 37s
223:    learn: 0.0607518        total: 1m 19s   remaining: 1m 37s
224:    learn: 0.0605915        total: 1m 19s   remaining: 1m 37s
225:    learn: 0.0602613        total: 1m 19s   remaining: 1m 36s
226:    learn: 0.0599058        total: 1m 20s   remaining: 1m 36s
227:    learn: 0.0595769        total: 1m 20s   remaining: 1m 36s
228:    learn: 0.0592886        total: 1m 20s   remaining: 1m 35s
229:    learn: 0.0588864        total: 1m 21s   remaining: 1m 35s
230:    learn: 0.0584725        total: 1m 21s   remaining: 1m 35s
231:    learn: 0.0581270        total: 1m 22s   remaining: 1m 34s
232:    learn: 0.0577305        total: 1m 22s   remaining: 1m 34s
233:    learn: 0.0573741        total: 1m 22s   remaining: 1m 34s
234:    learn: 0.0569924        total: 1m 23s   remaining: 1m 33s
235:    learn: 0.0567235        total: 1m 23s   remaining: 1m 33s
236:    learn: 0.0563748        total: 1m 23s   remaining: 1m 32s
237:    learn: 0.0560546        total: 1m 24s   remaining: 1m 32s
238:    learn: 0.0556899        total: 1m 24s   remaining: 1m 32s
239:    learn: 0.0553533        total: 1m 24s   remaining: 1m 32s
240:    learn: 0.0550764        total: 1m 25s   remaining: 1m 31s
241:    learn: 0.0547470        total: 1m 25s   remaining: 1m 31s
242:    learn: 0.0545235        total: 1m 26s   remaining: 1m 31s
243:    learn: 0.0543109        total: 1m 26s   remaining: 1m 30s
244:    learn: 0.0540485        total: 1m 26s   remaining: 1m 30s
245:    learn: 0.0537842        total: 1m 27s   remaining: 1m 29s
246:    learn: 0.0535458        total: 1m 27s   remaining: 1m 29s
247:    learn: 0.0532622        total: 1m 27s   remaining: 1m 29s
248:    learn: 0.0529061        total: 1m 28s   remaining: 1m 28s
249:    learn: 0.0525968        total: 1m 28s   remaining: 1m 28s
250:    learn: 0.0523412        total: 1m 28s   remaining: 1m 28s
251:    learn: 0.0521063        total: 1m 29s   remaining: 1m 27s
252:    learn: 0.0517903        total: 1m 29s   remaining: 1m 27s
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253:    learn: 0.0514823        total: 1m 29s   remaining: 1m 27s
254:    learn: 0.0512648        total: 1m 30s   remaining: 1m 26s
255:    learn: 0.0509850        total: 1m 30s   remaining: 1m 26s
256:    learn: 0.0507373        total: 1m 30s   remaining: 1m 25s
257:    learn: 0.0504869        total: 1m 31s   remaining: 1m 25s
258:    learn: 0.0502111        total: 1m 31s   remaining: 1m 25s
259:    learn: 0.0499931        total: 1m 31s   remaining: 1m 24s
260:    learn: 0.0497534        total: 1m 32s   remaining: 1m 24s
261:    learn: 0.0493378        total: 1m 32s   remaining: 1m 24s
262:    learn: 0.0490559        total: 1m 33s   remaining: 1m 23s
263:    learn: 0.0488939        total: 1m 33s   remaining: 1m 23s
264:    learn: 0.0485993        total: 1m 33s   remaining: 1m 23s
265:    learn: 0.0484132        total: 1m 34s   remaining: 1m 22s
266:    learn: 0.0481628        total: 1m 34s   remaining: 1m 22s
267:    learn: 0.0478540        total: 1m 34s   remaining: 1m 22s
268:    learn: 0.0475042        total: 1m 35s   remaining: 1m 21s
269:    learn: 0.0471497        total: 1m 35s   remaining: 1m 21s
270:    learn: 0.0469892        total: 1m 35s   remaining: 1m 20s
271:    learn: 0.0467538        total: 1m 36s   remaining: 1m 20s
272:    learn: 0.0464992        total: 1m 36s   remaining: 1m 20s
273:    learn: 0.0463012        total: 1m 36s   remaining: 1m 19s
274:    learn: 0.0461034        total: 1m 37s   remaining: 1m 19s
275:    learn: 0.0459110        total: 1m 37s   remaining: 1m 19s
276:    learn: 0.0456574        total: 1m 37s   remaining: 1m 18s
277:    learn: 0.0455272        total: 1m 38s   remaining: 1m 18s
278:    learn: 0.0453387        total: 1m 38s   remaining: 1m 18s
279:    learn: 0.0451489        total: 1m 38s   remaining: 1m 17s
280:    learn: 0.0449102        total: 1m 39s   remaining: 1m 17s
281:    learn: 0.0446049        total: 1m 39s   remaining: 1m 16s
282:    learn: 0.0443576        total: 1m 39s   remaining: 1m 16s
283:    learn: 0.0440934        total: 1m 40s   remaining: 1m 16s
284:    learn: 0.0438456        total: 1m 40s   remaining: 1m 15s
285:    learn: 0.0436507        total: 1m 41s   remaining: 1m 15s
286:    learn: 0.0434611        total: 1m 41s   remaining: 1m 15s
287:    learn: 0.0433445        total: 1m 41s   remaining: 1m 15s
288:    learn: 0.0431225        total: 1m 42s   remaining: 1m 14s
289:    learn: 0.0429119        total: 1m 42s   remaining: 1m 14s
290:    learn: 0.0427095        total: 1m 42s   remaining: 1m 13s
291:    learn: 0.0424718        total: 1m 43s   remaining: 1m 13s
292:    learn: 0.0422742        total: 1m 43s   remaining: 1m 13s
293:    learn: 0.0421081        total: 1m 43s   remaining: 1m 12s
294:    learn: 0.0418670        total: 1m 44s   remaining: 1m 12s
295:    learn: 0.0416547        total: 1m 44s   remaining: 1m 12s
296:    learn: 0.0414142        total: 1m 45s   remaining: 1m 11s
297:    learn: 0.0411381        total: 1m 45s   remaining: 1m 11s
298:    learn: 0.0409680        total: 1m 45s   remaining: 1m 11s
299:    learn: 0.0407938        total: 1m 46s   remaining: 1m 10s
300:    learn: 0.0405974        total: 1m 46s   remaining: 1m 10s
301:    learn: 0.0403818        total: 1m 46s   remaining: 1m 10s
302:    learn: 0.0402041        total: 1m 47s   remaining: 1m 9s
303:    learn: 0.0400476        total: 1m 47s   remaining: 1m 9s
304:    learn: 0.0398645        total: 1m 47s   remaining: 1m 8s
305:    learn: 0.0397178        total: 1m 48s   remaining: 1m 8s
306:    learn: 0.0394923        total: 1m 48s   remaining: 1m 8s
307:    learn: 0.0393652        total: 1m 48s   remaining: 1m 7s
308:    learn: 0.0391345        total: 1m 49s   remaining: 1m 7s
309:    learn: 0.0389879        total: 1m 49s   remaining: 1m 7s
310:    learn: 0.0387472        total: 1m 49s   remaining: 1m 6s
311:    learn: 0.0385482        total: 1m 50s   remaining: 1m 6s
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312:    learn: 0.0384157        total: 1m 50s   remaining: 1m 6s
313:    learn: 0.0382617        total: 1m 50s   remaining: 1m 5s
314:    learn: 0.0380798        total: 1m 51s   remaining: 1m 5s
315:    learn: 0.0378549        total: 1m 51s   remaining: 1m 4s
316:    learn: 0.0376694        total: 1m 51s   remaining: 1m 4s
317:    learn: 0.0374728        total: 1m 52s   remaining: 1m 4s
318:    learn: 0.0372117        total: 1m 52s   remaining: 1m 3s
319:    learn: 0.0370125        total: 1m 53s   remaining: 1m 3s
320:    learn: 0.0368070        total: 1m 53s   remaining: 1m 3s
321:    learn: 0.0366073        total: 1m 53s   remaining: 1m 2s
322:    learn: 0.0364688        total: 1m 54s   remaining: 1m 2s
323:    learn: 0.0362653        total: 1m 54s   remaining: 1m 2s
324:    learn: 0.0361441        total: 1m 54s   remaining: 1m 1s
325:    learn: 0.0360079        total: 1m 55s   remaining: 1m 1s
326:    learn: 0.0358393        total: 1m 55s   remaining: 1m 1s
327:    learn: 0.0356536        total: 1m 55s   remaining: 1m
328:    learn: 0.0355137        total: 1m 56s   remaining: 1m
329:    learn: 0.0353127        total: 1m 56s   remaining: 1m
330:    learn: 0.0351147        total: 1m 56s   remaining: 59.7s
331:    learn: 0.0349313        total: 1m 57s   remaining: 59.4s
332:    learn: 0.0347780        total: 1m 57s   remaining: 59.1s
333:    learn: 0.0346872        total: 1m 58s   remaining: 58.7s
334:    learn: 0.0345092        total: 1m 58s   remaining: 58.3s
335:    learn: 0.0343154        total: 1m 58s   remaining: 58s
336:    learn: 0.0341683        total: 1m 59s   remaining: 57.6s
337:    learn: 0.0339831        total: 1m 59s   remaining: 57.3s
338:    learn: 0.0337982        total: 1m 59s   remaining: 56.9s
339:    learn: 0.0336193        total: 2m       remaining: 56.6s
340:    learn: 0.0334328        total: 2m       remaining: 56.2s
341:    learn: 0.0332874        total: 2m       remaining: 55.8s
342:    learn: 0.0331204        total: 2m 1s    remaining: 55.5s
343:    learn: 0.0329939        total: 2m 1s    remaining: 55.1s
344:    learn: 0.0328437        total: 2m 1s    remaining: 54.8s
345:    learn: 0.0326555        total: 2m 2s    remaining: 54.4s
346:    learn: 0.0324865        total: 2m 2s    remaining: 54.1s
347:    learn: 0.0322607        total: 2m 3s    remaining: 53.7s
348:    learn: 0.0321534        total: 2m 3s    remaining: 53.4s
349:    learn: 0.0320444        total: 2m 3s    remaining: 53s
350:    learn: 0.0318578        total: 2m 4s    remaining: 52.7s
351:    learn: 0.0317059        total: 2m 4s    remaining: 52.3s
352:    learn: 0.0316085        total: 2m 4s    remaining: 51.9s
353:    learn: 0.0314632        total: 2m 5s    remaining: 51.6s
354:    learn: 0.0313157        total: 2m 5s    remaining: 51.2s
355:    learn: 0.0312136        total: 2m 5s    remaining: 50.9s
356:    learn: 0.0310901        total: 2m 6s    remaining: 50.5s
357:    learn: 0.0309575        total: 2m 6s    remaining: 50.2s
358:    learn: 0.0308222        total: 2m 6s    remaining: 49.8s
359:    learn: 0.0306236        total: 2m 7s    remaining: 49.5s
360:    learn: 0.0304234        total: 2m 7s    remaining: 49.1s
361:    learn: 0.0303081        total: 2m 7s    remaining: 48.8s
362:    learn: 0.0301519        total: 2m 8s    remaining: 48.4s
363:    learn: 0.0300556        total: 2m 8s    remaining: 48.1s
364:    learn: 0.0299058        total: 2m 9s    remaining: 47.7s
365:    learn: 0.0297541        total: 2m 9s    remaining: 47.4s
366:    learn: 0.0296258        total: 2m 9s    remaining: 47s
367:    learn: 0.0294520        total: 2m 10s   remaining: 46.7s
368:    learn: 0.0293112        total: 2m 10s   remaining: 46.3s
369:    learn: 0.0291868        total: 2m 10s   remaining: 46s
370:    learn: 0.0290076        total: 2m 11s   remaining: 45.6s
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371:    learn: 0.0288844        total: 2m 11s   remaining: 45.3s
372:    learn: 0.0287346        total: 2m 11s   remaining: 44.9s
373:    learn: 0.0286306        total: 2m 12s   remaining: 44.5s
374:    learn: 0.0285503        total: 2m 12s   remaining: 44.2s
375:    learn: 0.0283574        total: 2m 13s   remaining: 43.9s
376:    learn: 0.0282229        total: 2m 13s   remaining: 43.6s
377:    learn: 0.0280705        total: 2m 13s   remaining: 43.2s
378:    learn: 0.0279551        total: 2m 14s   remaining: 42.9s
379:    learn: 0.0278229        total: 2m 14s   remaining: 42.5s
380:    learn: 0.0277246        total: 2m 14s   remaining: 42.1s
381:    learn: 0.0276095        total: 2m 15s   remaining: 41.8s
382:    learn: 0.0275061        total: 2m 15s   remaining: 41.4s
383:    learn: 0.0273935        total: 2m 15s   remaining: 41.1s
384:    learn: 0.0272849        total: 2m 16s   remaining: 40.7s
385:    learn: 0.0271924        total: 2m 16s   remaining: 40.4s
386:    learn: 0.0270618        total: 2m 17s   remaining: 40s
387:    learn: 0.0269696        total: 2m 17s   remaining: 39.6s
388:    learn: 0.0268384        total: 2m 17s   remaining: 39.3s
389:    learn: 0.0267297        total: 2m 18s   remaining: 38.9s
390:    learn: 0.0266309        total: 2m 18s   remaining: 38.6s
391:    learn: 0.0264696        total: 2m 18s   remaining: 38.2s
392:    learn: 0.0262888        total: 2m 19s   remaining: 37.9s
393:    learn: 0.0261609        total: 2m 19s   remaining: 37.5s
394:    learn: 0.0260669        total: 2m 19s   remaining: 37.2s
395:    learn: 0.0258874        total: 2m 20s   remaining: 36.8s
396:    learn: 0.0258192        total: 2m 20s   remaining: 36.5s
397:    learn: 0.0257017        total: 2m 20s   remaining: 36.1s
398:    learn: 0.0255962        total: 2m 21s   remaining: 35.8s
399:    learn: 0.0255140        total: 2m 21s   remaining: 35.4s
400:    learn: 0.0254157        total: 2m 21s   remaining: 35.1s
401:    learn: 0.0253215        total: 2m 22s   remaining: 34.7s
402:    learn: 0.0251929        total: 2m 22s   remaining: 34.4s
403:    learn: 0.0250393        total: 2m 23s   remaining: 34s
404:    learn: 0.0249380        total: 2m 23s   remaining: 33.6s
405:    learn: 0.0248334        total: 2m 23s   remaining: 33.3s
406:    learn: 0.0247173        total: 2m 24s   remaining: 32.9s
407:    learn: 0.0246282        total: 2m 24s   remaining: 32.6s
408:    learn: 0.0245555        total: 2m 24s   remaining: 32.2s
409:    learn: 0.0244552        total: 2m 25s   remaining: 31.9s
410:    learn: 0.0243477        total: 2m 25s   remaining: 31.5s
411:    learn: 0.0242761        total: 2m 25s   remaining: 31.2s
412:    learn: 0.0241691        total: 2m 26s   remaining: 30.8s
413:    learn: 0.0240616        total: 2m 26s   remaining: 30.5s
414:    learn: 0.0239978        total: 2m 26s   remaining: 30.1s
415:    learn: 0.0238934        total: 2m 27s   remaining: 29.7s
416:    learn: 0.0238150        total: 2m 27s   remaining: 29.4s
417:    learn: 0.0237083        total: 2m 28s   remaining: 29s
418:    learn: 0.0236277        total: 2m 28s   remaining: 28.7s
419:    learn: 0.0235295        total: 2m 28s   remaining: 28.4s
420:    learn: 0.0234622        total: 2m 29s   remaining: 28s
421:    learn: 0.0234029        total: 2m 29s   remaining: 27.7s
422:    learn: 0.0233002        total: 2m 29s   remaining: 27.3s
423:    learn: 0.0232118        total: 2m 30s   remaining: 26.9s
424:    learn: 0.0231183        total: 2m 30s   remaining: 26.6s
425:    learn: 0.0230426        total: 2m 31s   remaining: 26.2s
426:    learn: 0.0229105        total: 2m 31s   remaining: 25.9s
427:    learn: 0.0228084        total: 2m 31s   remaining: 25.5s
428:    learn: 0.0227235        total: 2m 32s   remaining: 25.2s
429:    learn: 0.0226001        total: 2m 32s   remaining: 24.8s
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430:    learn: 0.0225196        total: 2m 32s   remaining: 24.5s
431:    learn: 0.0224294        total: 2m 33s   remaining: 24.1s
432:    learn: 0.0223056        total: 2m 33s   remaining: 23.7s
433:    learn: 0.0222442        total: 2m 33s   remaining: 23.4s
434:    learn: 0.0221851        total: 2m 34s   remaining: 23s
435:    learn: 0.0221204        total: 2m 34s   remaining: 22.7s
436:    learn: 0.0220272        total: 2m 34s   remaining: 22.3s
437:    learn: 0.0219371        total: 2m 35s   remaining: 22s
438:    learn: 0.0218366        total: 2m 35s   remaining: 21.6s
439:    learn: 0.0217683        total: 2m 35s   remaining: 21.3s
440:    learn: 0.0216938        total: 2m 36s   remaining: 20.9s
441:    learn: 0.0215661        total: 2m 36s   remaining: 20.5s
442:    learn: 0.0214470        total: 2m 36s   remaining: 20.2s
443:    learn: 0.0213637        total: 2m 37s   remaining: 19.8s
444:    learn: 0.0212737        total: 2m 37s   remaining: 19.5s
445:    learn: 0.0211999        total: 2m 37s   remaining: 19.1s
446:    learn: 0.0211059        total: 2m 38s   remaining: 18.8s
447:    learn: 0.0210007        total: 2m 38s   remaining: 18.4s
448:    learn: 0.0209116        total: 2m 39s   remaining: 18.1s
449:    learn: 0.0208342        total: 2m 39s   remaining: 17.7s
450:    learn: 0.0207587        total: 2m 39s   remaining: 17.4s
451:    learn: 0.0206553        total: 2m 40s   remaining: 17s
452:    learn: 0.0205569        total: 2m 40s   remaining: 16.6s
453:    learn: 0.0204837        total: 2m 40s   remaining: 16.3s
454:    learn: 0.0204067        total: 2m 41s   remaining: 15.9s
455:    learn: 0.0203247        total: 2m 41s   remaining: 15.6s
456:    learn: 0.0202622        total: 2m 41s   remaining: 15.2s
457:    learn: 0.0202087        total: 2m 42s   remaining: 14.9s
458:    learn: 0.0201104        total: 2m 42s   remaining: 14.5s
459:    learn: 0.0200142        total: 2m 42s   remaining: 14.2s
460:    learn: 0.0199182        total: 2m 43s   remaining: 13.8s
461:    learn: 0.0198056        total: 2m 43s   remaining: 13.5s
462:    learn: 0.0197401        total: 2m 43s   remaining: 13.1s
463:    learn: 0.0196215        total: 2m 44s   remaining: 12.7s
464:    learn: 0.0195632        total: 2m 44s   remaining: 12.4s
465:    learn: 0.0195013        total: 2m 45s   remaining: 12s
466:    learn: 0.0194349        total: 2m 45s   remaining: 11.7s
467:    learn: 0.0193781        total: 2m 45s   remaining: 11.3s
468:    learn: 0.0193058        total: 2m 46s   remaining: 11s
469:    learn: 0.0192485        total: 2m 46s   remaining: 10.6s
470:    learn: 0.0191876        total: 2m 46s   remaining: 10.3s
471:    learn: 0.0190980        total: 2m 47s   remaining: 9.92s
472:    learn: 0.0190322        total: 2m 47s   remaining: 9.57s
473:    learn: 0.0189267        total: 2m 47s   remaining: 9.21s
474:    learn: 0.0188576        total: 2m 48s   remaining: 8.86s
475:    learn: 0.0187898        total: 2m 48s   remaining: 8.5s
476:    learn: 0.0186933        total: 2m 48s   remaining: 8.15s
477:    learn: 0.0186414        total: 2m 49s   remaining: 7.79s
478:    learn: 0.0185462        total: 2m 49s   remaining: 7.44s
479:    learn: 0.0185140        total: 2m 50s   remaining: 7.08s
480:    learn: 0.0184569        total: 2m 50s   remaining: 6.73s
481:    learn: 0.0183882        total: 2m 50s   remaining: 6.38s
482:    learn: 0.0183298        total: 2m 51s   remaining: 6.02s
483:    learn: 0.0182839        total: 2m 51s   remaining: 5.67s
484:    learn: 0.0182244        total: 2m 51s   remaining: 5.31s
485:    learn: 0.0181681        total: 2m 52s   remaining: 4.96s
486:    learn: 0.0181057        total: 2m 52s   remaining: 4.6s
487:    learn: 0.0180219        total: 2m 52s   remaining: 4.25s
488:    learn: 0.0179531        total: 2m 53s   remaining: 3.89s
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489:    learn: 0.0178942        total: 2m 53s   remaining: 3.54s
490:    learn: 0.0177842        total: 2m 53s   remaining: 3.19s
491:    learn: 0.0177295        total: 2m 54s   remaining: 2.83s
492:    learn: 0.0176467        total: 2m 54s   remaining: 2.48s
493:    learn: 0.0175775        total: 2m 54s   remaining: 2.12s
494:    learn: 0.0175222        total: 2m 55s   remaining: 1.77s
495:    learn: 0.0174632        total: 2m 55s   remaining: 1.42s
496:    learn: 0.0174084        total: 2m 55s   remaining: 1.06s
497:    learn: 0.0173593        total: 2m 56s   remaining: 708ms
498:    learn: 0.0173189        total: 2m 56s   remaining: 354ms
499:    learn: 0.0172473        total: 2m 56s   remaining: 0us
[CV]  learning_rate=0.3, l2_leaf_reg=10, iterations=500, depth=10, ctr_b
order_count=50, border_count=10, score=0.8407758611456662, total= 3.1min
[CV] learning_rate=0.3, l2_leaf_reg=10, iterations=500, depth=10, ctr_bo
rder_count=50, border_count=10
0:      learn: 0.4795174        total: 369ms    remaining: 3m 4s
1:      learn: 0.3846598        total: 735ms    remaining: 3m 2s
2:      learn: 0.3368874        total: 1.09s    remaining: 3m 1s
3:      learn: 0.3141566        total: 1.44s    remaining: 2m 59s
4:      learn: 0.3003391        total: 1.79s    remaining: 2m 57s
5:      learn: 0.2904337        total: 2.14s    remaining: 2m 56s
6:      learn: 0.2832643        total: 2.49s    remaining: 2m 55s
7:      learn: 0.2779408        total: 2.83s    remaining: 2m 54s
8:      learn: 0.2728311        total: 3.18s    remaining: 2m 53s
9:      learn: 0.2689841        total: 3.54s    remaining: 2m 53s
10:     learn: 0.2656690        total: 3.88s    remaining: 2m 52s
11:     learn: 0.2617531        total: 4.23s    remaining: 2m 51s
12:     learn: 0.2581763        total: 4.57s    remaining: 2m 51s
13:     learn: 0.2546626        total: 4.92s    remaining: 2m 50s
14:     learn: 0.2519842        total: 5.26s    remaining: 2m 50s
15:     learn: 0.2490118        total: 5.61s    remaining: 2m 49s
16:     learn: 0.2462735        total: 5.96s    remaining: 2m 49s
17:     learn: 0.2433152        total: 6.31s    remaining: 2m 49s
18:     learn: 0.2406456        total: 6.66s    remaining: 2m 48s
19:     learn: 0.2379934        total: 7.01s    remaining: 2m 48s
20:     learn: 0.2356167        total: 7.36s    remaining: 2m 47s
21:     learn: 0.2330443        total: 7.72s    remaining: 2m 47s
22:     learn: 0.2303966        total: 8.07s    remaining: 2m 47s
23:     learn: 0.2280566        total: 8.42s    remaining: 2m 46s
24:     learn: 0.2258642        total: 8.83s    remaining: 2m 47s
25:     learn: 0.2235296        total: 9.26s    remaining: 2m 48s
26:     learn: 0.2214149        total: 9.68s    remaining: 2m 49s
27:     learn: 0.2194477        total: 10s      remaining: 2m 49s
28:     learn: 0.2173419        total: 10.4s    remaining: 2m 48s
29:     learn: 0.2153530        total: 10.7s    remaining: 2m 48s
30:     learn: 0.2133119        total: 11.1s    remaining: 2m 47s
31:     learn: 0.2110663        total: 11.4s    remaining: 2m 47s
32:     learn: 0.2093467        total: 11.8s    remaining: 2m 46s
33:     learn: 0.2073088        total: 12.1s    remaining: 2m 46s
34:     learn: 0.2054364        total: 12.5s    remaining: 2m 45s
35:     learn: 0.2035823        total: 12.8s    remaining: 2m 45s
36:     learn: 0.2018403        total: 13.2s    remaining: 2m 45s
37:     learn: 0.2004894        total: 13.5s    remaining: 2m 44s
38:     learn: 0.1987377        total: 13.9s    remaining: 2m 44s
39:     learn: 0.1967654        total: 14.2s    remaining: 2m 43s
40:     learn: 0.1954366        total: 14.6s    remaining: 2m 43s
41:     learn: 0.1939648        total: 14.9s    remaining: 2m 42s
42:     learn: 0.1926475        total: 15.3s    remaining: 2m 42s
43:     learn: 0.1912294        total: 15.6s    remaining: 2m 41s
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44:     learn: 0.1896389        total: 16s      remaining: 2m 41s
45:     learn: 0.1882384        total: 16.3s    remaining: 2m 41s
46:     learn: 0.1866056        total: 16.7s    remaining: 2m 40s
47:     learn: 0.1852460        total: 17s      remaining: 2m 40s
48:     learn: 0.1839023        total: 17.4s    remaining: 2m 40s
49:     learn: 0.1825597        total: 17.8s    remaining: 2m 40s
50:     learn: 0.1811905        total: 18.3s    remaining: 2m 41s
51:     learn: 0.1795928        total: 18.9s    remaining: 2m 42s
52:     learn: 0.1778736        total: 19.4s    remaining: 2m 43s
53:     learn: 0.1761470        total: 19.8s    remaining: 2m 43s
54:     learn: 0.1746260        total: 20.2s    remaining: 2m 43s
55:     learn: 0.1732223        total: 20.5s    remaining: 2m 42s
56:     learn: 0.1716813        total: 20.9s    remaining: 2m 42s
57:     learn: 0.1706711        total: 21.3s    remaining: 2m 42s
58:     learn: 0.1692369        total: 21.8s    remaining: 2m 43s
59:     learn: 0.1677829        total: 22.2s    remaining: 2m 43s
60:     learn: 0.1666286        total: 22.7s    remaining: 2m 43s
61:     learn: 0.1655453        total: 23.1s    remaining: 2m 42s
62:     learn: 0.1641407        total: 23.4s    remaining: 2m 42s
63:     learn: 0.1628526        total: 23.8s    remaining: 2m 42s
64:     learn: 0.1617888        total: 24.2s    remaining: 2m 41s
65:     learn: 0.1605259        total: 24.5s    remaining: 2m 41s
66:     learn: 0.1594168        total: 24.9s    remaining: 2m 41s
67:     learn: 0.1583802        total: 25.4s    remaining: 2m 41s
68:     learn: 0.1573755        total: 25.8s    remaining: 2m 41s
69:     learn: 0.1563791        total: 26.2s    remaining: 2m 40s
70:     learn: 0.1551575        total: 26.5s    remaining: 2m 40s
71:     learn: 0.1540588        total: 26.9s    remaining: 2m 39s
72:     learn: 0.1530357        total: 27.2s    remaining: 2m 39s
73:     learn: 0.1520737        total: 27.6s    remaining: 2m 38s
74:     learn: 0.1509691        total: 27.9s    remaining: 2m 38s
75:     learn: 0.1497639        total: 28.3s    remaining: 2m 37s
76:     learn: 0.1488329        total: 28.7s    remaining: 2m 37s
77:     learn: 0.1479809        total: 29s      remaining: 2m 36s
78:     learn: 0.1468455        total: 29.4s    remaining: 2m 36s
79:     learn: 0.1457091        total: 29.7s    remaining: 2m 35s
80:     learn: 0.1445627        total: 30.1s    remaining: 2m 35s
81:     learn: 0.1435022        total: 30.4s    remaining: 2m 35s
82:     learn: 0.1427723        total: 30.8s    remaining: 2m 34s
83:     learn: 0.1417488        total: 31.1s    remaining: 2m 34s
84:     learn: 0.1406132        total: 31.5s    remaining: 2m 33s
85:     learn: 0.1396289        total: 31.8s    remaining: 2m 33s
86:     learn: 0.1386873        total: 32.2s    remaining: 2m 32s
87:     learn: 0.1379587        total: 32.5s    remaining: 2m 32s
88:     learn: 0.1369789        total: 32.9s    remaining: 2m 31s
89:     learn: 0.1361419        total: 33.2s    remaining: 2m 31s
90:     learn: 0.1351218        total: 33.6s    remaining: 2m 30s
91:     learn: 0.1340111        total: 33.9s    remaining: 2m 30s
92:     learn: 0.1329689        total: 34.3s    remaining: 2m 30s
93:     learn: 0.1319586        total: 34.7s    remaining: 2m 29s
94:     learn: 0.1309840        total: 35s      remaining: 2m 29s
95:     learn: 0.1299787        total: 35.4s    remaining: 2m 28s
96:     learn: 0.1291379        total: 35.7s    remaining: 2m 28s
97:     learn: 0.1281772        total: 36.1s    remaining: 2m 27s
98:     learn: 0.1272694        total: 36.4s    remaining: 2m 27s
99:     learn: 0.1265133        total: 36.8s    remaining: 2m 27s
100:    learn: 0.1254667        total: 37.1s    remaining: 2m 26s
101:    learn: 0.1245234        total: 37.5s    remaining: 2m 26s
102:    learn: 0.1237569        total: 37.9s    remaining: 2m 26s
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103:    learn: 0.1229254        total: 38.2s    remaining: 2m 25s
104:    learn: 0.1219383        total: 38.6s    remaining: 2m 25s
105:    learn: 0.1212322        total: 38.9s    remaining: 2m 24s
106:    learn: 0.1202984        total: 39.3s    remaining: 2m 24s
107:    learn: 0.1195904        total: 39.6s    remaining: 2m 23s
108:    learn: 0.1189050        total: 40s      remaining: 2m 23s
109:    learn: 0.1183008        total: 40.3s    remaining: 2m 23s
110:    learn: 0.1173911        total: 40.7s    remaining: 2m 22s
111:    learn: 0.1168259        total: 41.2s    remaining: 2m 22s
112:    learn: 0.1160431        total: 41.6s    remaining: 2m 22s
113:    learn: 0.1150947        total: 42s      remaining: 2m 22s
114:    learn: 0.1144256        total: 42.3s    remaining: 2m 21s
115:    learn: 0.1136218        total: 42.7s    remaining: 2m 21s
116:    learn: 0.1130919        total: 43s      remaining: 2m 20s
117:    learn: 0.1122636        total: 43.4s    remaining: 2m 20s
118:    learn: 0.1114477        total: 43.8s    remaining: 2m 20s
119:    learn: 0.1107753        total: 44.1s    remaining: 2m 19s
120:    learn: 0.1100325        total: 44.5s    remaining: 2m 19s
121:    learn: 0.1093970        total: 44.8s    remaining: 2m 18s
122:    learn: 0.1085923        total: 45.2s    remaining: 2m 18s
123:    learn: 0.1080072        total: 45.5s    remaining: 2m 17s
124:    learn: 0.1072666        total: 45.9s    remaining: 2m 17s
125:    learn: 0.1064445        total: 46.2s    remaining: 2m 17s
126:    learn: 0.1059009        total: 46.6s    remaining: 2m 16s
127:    learn: 0.1051315        total: 46.9s    remaining: 2m 16s
128:    learn: 0.1045827        total: 47.3s    remaining: 2m 15s
129:    learn: 0.1039744        total: 47.6s    remaining: 2m 15s
130:    learn: 0.1033039        total: 48s      remaining: 2m 15s
131:    learn: 0.1028286        total: 48.3s    remaining: 2m 14s
132:    learn: 0.1022359        total: 48.7s    remaining: 2m 14s
133:    learn: 0.1016806        total: 49s      remaining: 2m 13s
134:    learn: 0.1011593        total: 49.4s    remaining: 2m 13s
135:    learn: 0.1004780        total: 49.7s    remaining: 2m 13s
136:    learn: 0.0997182        total: 50.1s    remaining: 2m 12s
137:    learn: 0.0988592        total: 50.4s    remaining: 2m 12s
138:    learn: 0.0982320        total: 50.8s    remaining: 2m 11s
139:    learn: 0.0975333        total: 51.1s    remaining: 2m 11s
140:    learn: 0.0967294        total: 51.5s    remaining: 2m 11s
141:    learn: 0.0962697        total: 51.8s    remaining: 2m 10s
142:    learn: 0.0957834        total: 52.2s    remaining: 2m 10s
143:    learn: 0.0951986        total: 52.5s    remaining: 2m 9s
144:    learn: 0.0946850        total: 52.9s    remaining: 2m 9s
145:    learn: 0.0940350        total: 53.2s    remaining: 2m 9s
146:    learn: 0.0934729        total: 53.6s    remaining: 2m 8s
147:    learn: 0.0927780        total: 53.9s    remaining: 2m 8s
148:    learn: 0.0921727        total: 54.3s    remaining: 2m 7s
149:    learn: 0.0916157        total: 54.6s    remaining: 2m 7s
150:    learn: 0.0910777        total: 55s      remaining: 2m 7s
151:    learn: 0.0904643        total: 55.3s    remaining: 2m 6s
152:    learn: 0.0899346        total: 55.7s    remaining: 2m 6s
153:    learn: 0.0893410        total: 56s      remaining: 2m 5s
154:    learn: 0.0889518        total: 56.4s    remaining: 2m 5s
155:    learn: 0.0884388        total: 56.8s    remaining: 2m 5s
156:    learn: 0.0878676        total: 57.2s    remaining: 2m 4s
157:    learn: 0.0874181        total: 57.6s    remaining: 2m 4s
158:    learn: 0.0869528        total: 58s      remaining: 2m 4s
159:    learn: 0.0865230        total: 58.3s    remaining: 2m 3s
160:    learn: 0.0859761        total: 58.7s    remaining: 2m 3s
161:    learn: 0.0853590        total: 59s      remaining: 2m 3s
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162:    learn: 0.0847181        total: 59.4s    remaining: 2m 2s
163:    learn: 0.0842233        total: 59.8s    remaining: 2m 2s
164:    learn: 0.0835399        total: 1m       remaining: 2m 2s
165:    learn: 0.0830479        total: 1m       remaining: 2m 1s
166:    learn: 0.0825646        total: 1m       remaining: 2m 1s
167:    learn: 0.0821118        total: 1m 1s    remaining: 2m 1s
168:    learn: 0.0815259        total: 1m 1s    remaining: 2m
169:    learn: 0.0810340        total: 1m 1s    remaining: 2m
170:    learn: 0.0806150        total: 1m 2s    remaining: 1m 59s
171:    learn: 0.0801447        total: 1m 2s    remaining: 1m 59s
172:    learn: 0.0795260        total: 1m 3s    remaining: 1m 59s
173:    learn: 0.0790885        total: 1m 3s    remaining: 1m 58s
174:    learn: 0.0786352        total: 1m 3s    remaining: 1m 58s
175:    learn: 0.0783141        total: 1m 4s    remaining: 1m 58s
176:    learn: 0.0778289        total: 1m 4s    remaining: 1m 57s
177:    learn: 0.0772453        total: 1m 4s    remaining: 1m 57s
178:    learn: 0.0766672        total: 1m 5s    remaining: 1m 56s
179:    learn: 0.0762370        total: 1m 5s    remaining: 1m 56s
180:    learn: 0.0757745        total: 1m 5s    remaining: 1m 56s
181:    learn: 0.0753067        total: 1m 6s    remaining: 1m 55s
182:    learn: 0.0746746        total: 1m 6s    remaining: 1m 55s
183:    learn: 0.0742957        total: 1m 6s    remaining: 1m 54s
184:    learn: 0.0739952        total: 1m 7s    remaining: 1m 54s
185:    learn: 0.0736786        total: 1m 7s    remaining: 1m 54s
186:    learn: 0.0732704        total: 1m 7s    remaining: 1m 53s
187:    learn: 0.0727942        total: 1m 8s    remaining: 1m 53s
188:    learn: 0.0724302        total: 1m 8s    remaining: 1m 52s
189:    learn: 0.0718929        total: 1m 9s    remaining: 1m 52s
190:    learn: 0.0714591        total: 1m 9s    remaining: 1m 52s
191:    learn: 0.0710411        total: 1m 9s    remaining: 1m 51s
192:    learn: 0.0706976        total: 1m 10s   remaining: 1m 51s
193:    learn: 0.0702707        total: 1m 10s   remaining: 1m 51s
194:    learn: 0.0698835        total: 1m 10s   remaining: 1m 50s
195:    learn: 0.0694850        total: 1m 11s   remaining: 1m 50s
196:    learn: 0.0690692        total: 1m 11s   remaining: 1m 49s
197:    learn: 0.0685948        total: 1m 11s   remaining: 1m 49s
198:    learn: 0.0683003        total: 1m 12s   remaining: 1m 49s
199:    learn: 0.0680033        total: 1m 12s   remaining: 1m 48s
200:    learn: 0.0675161        total: 1m 12s   remaining: 1m 48s
201:    learn: 0.0672149        total: 1m 13s   remaining: 1m 48s
202:    learn: 0.0668445        total: 1m 13s   remaining: 1m 47s
203:    learn: 0.0665419        total: 1m 14s   remaining: 1m 47s
204:    learn: 0.0661181        total: 1m 14s   remaining: 1m 47s
205:    learn: 0.0656023        total: 1m 14s   remaining: 1m 46s
206:    learn: 0.0652445        total: 1m 15s   remaining: 1m 46s
207:    learn: 0.0649236        total: 1m 15s   remaining: 1m 46s
208:    learn: 0.0644940        total: 1m 15s   remaining: 1m 45s
209:    learn: 0.0643238        total: 1m 16s   remaining: 1m 45s
210:    learn: 0.0637946        total: 1m 16s   remaining: 1m 44s
211:    learn: 0.0635282        total: 1m 16s   remaining: 1m 44s
212:    learn: 0.0631396        total: 1m 17s   remaining: 1m 44s
213:    learn: 0.0628048        total: 1m 17s   remaining: 1m 43s
214:    learn: 0.0623572        total: 1m 17s   remaining: 1m 43s
215:    learn: 0.0619052        total: 1m 18s   remaining: 1m 42s
216:    learn: 0.0615737        total: 1m 18s   remaining: 1m 42s
217:    learn: 0.0613212        total: 1m 19s   remaining: 1m 42s
218:    learn: 0.0609572        total: 1m 19s   remaining: 1m 41s
219:    learn: 0.0605508        total: 1m 19s   remaining: 1m 41s
220:    learn: 0.0600478        total: 1m 20s   remaining: 1m 41s
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221:    learn: 0.0597520        total: 1m 20s   remaining: 1m 40s
222:    learn: 0.0594934        total: 1m 20s   remaining: 1m 40s
223:    learn: 0.0591081        total: 1m 21s   remaining: 1m 39s
224:    learn: 0.0588021        total: 1m 21s   remaining: 1m 39s
225:    learn: 0.0584258        total: 1m 21s   remaining: 1m 39s
226:    learn: 0.0581043        total: 1m 22s   remaining: 1m 38s
227:    learn: 0.0577698        total: 1m 22s   remaining: 1m 38s
228:    learn: 0.0574981        total: 1m 22s   remaining: 1m 38s
229:    learn: 0.0571861        total: 1m 23s   remaining: 1m 37s
230:    learn: 0.0569242        total: 1m 23s   remaining: 1m 37s
231:    learn: 0.0565661        total: 1m 23s   remaining: 1m 36s
232:    learn: 0.0562457        total: 1m 24s   remaining: 1m 36s
233:    learn: 0.0560274        total: 1m 24s   remaining: 1m 36s
234:    learn: 0.0557000        total: 1m 24s   remaining: 1m 35s
235:    learn: 0.0554542        total: 1m 25s   remaining: 1m 35s
236:    learn: 0.0552769        total: 1m 25s   remaining: 1m 35s
237:    learn: 0.0549135        total: 1m 26s   remaining: 1m 34s
238:    learn: 0.0545109        total: 1m 26s   remaining: 1m 34s
239:    learn: 0.0543075        total: 1m 26s   remaining: 1m 33s
240:    learn: 0.0540682        total: 1m 27s   remaining: 1m 33s
241:    learn: 0.0537233        total: 1m 27s   remaining: 1m 33s
242:    learn: 0.0533852        total: 1m 27s   remaining: 1m 32s
243:    learn: 0.0529809        total: 1m 28s   remaining: 1m 32s
244:    learn: 0.0527294        total: 1m 28s   remaining: 1m 32s
245:    learn: 0.0524567        total: 1m 28s   remaining: 1m 31s
246:    learn: 0.0522198        total: 1m 29s   remaining: 1m 31s
247:    learn: 0.0519385        total: 1m 29s   remaining: 1m 31s
248:    learn: 0.0517661        total: 1m 30s   remaining: 1m 30s
249:    learn: 0.0514712        total: 1m 30s   remaining: 1m 30s
250:    learn: 0.0511527        total: 1m 30s   remaining: 1m 30s
251:    learn: 0.0508973        total: 1m 31s   remaining: 1m 29s
252:    learn: 0.0505961        total: 1m 31s   remaining: 1m 29s
253:    learn: 0.0503412        total: 1m 31s   remaining: 1m 28s
254:    learn: 0.0500125        total: 1m 32s   remaining: 1m 28s
255:    learn: 0.0496644        total: 1m 32s   remaining: 1m 28s
256:    learn: 0.0493313        total: 1m 32s   remaining: 1m 27s
257:    learn: 0.0491222        total: 1m 33s   remaining: 1m 27s
258:    learn: 0.0489104        total: 1m 33s   remaining: 1m 27s
259:    learn: 0.0486224        total: 1m 33s   remaining: 1m 26s
260:    learn: 0.0483720        total: 1m 34s   remaining: 1m 26s
261:    learn: 0.0480448        total: 1m 34s   remaining: 1m 25s
262:    learn: 0.0477369        total: 1m 35s   remaining: 1m 25s
263:    learn: 0.0473982        total: 1m 35s   remaining: 1m 25s
264:    learn: 0.0471894        total: 1m 35s   remaining: 1m 24s
265:    learn: 0.0469161        total: 1m 36s   remaining: 1m 24s
266:    learn: 0.0466769        total: 1m 36s   remaining: 1m 24s
267:    learn: 0.0464651        total: 1m 36s   remaining: 1m 23s
268:    learn: 0.0462073        total: 1m 37s   remaining: 1m 23s
269:    learn: 0.0459445        total: 1m 37s   remaining: 1m 23s
270:    learn: 0.0457124        total: 1m 37s   remaining: 1m 22s
271:    learn: 0.0455506        total: 1m 38s   remaining: 1m 22s
272:    learn: 0.0453046        total: 1m 38s   remaining: 1m 21s
273:    learn: 0.0450809        total: 1m 38s   remaining: 1m 21s
274:    learn: 0.0448327        total: 1m 39s   remaining: 1m 21s
275:    learn: 0.0446065        total: 1m 39s   remaining: 1m 20s
276:    learn: 0.0443503        total: 1m 39s   remaining: 1m 20s
277:    learn: 0.0439643        total: 1m 40s   remaining: 1m 20s
278:    learn: 0.0438046        total: 1m 40s   remaining: 1m 19s
279:    learn: 0.0435419        total: 1m 40s   remaining: 1m 19s
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280:    learn: 0.0433155        total: 1m 41s   remaining: 1m 18s
281:    learn: 0.0430169        total: 1m 41s   remaining: 1m 18s
282:    learn: 0.0428009        total: 1m 42s   remaining: 1m 18s
283:    learn: 0.0426557        total: 1m 42s   remaining: 1m 17s
284:    learn: 0.0423808        total: 1m 42s   remaining: 1m 17s
285:    learn: 0.0421486        total: 1m 43s   remaining: 1m 17s
286:    learn: 0.0419495        total: 1m 43s   remaining: 1m 16s
287:    learn: 0.0417412        total: 1m 43s   remaining: 1m 16s
288:    learn: 0.0415626        total: 1m 44s   remaining: 1m 16s
289:    learn: 0.0413633        total: 1m 44s   remaining: 1m 15s
290:    learn: 0.0411117        total: 1m 44s   remaining: 1m 15s
291:    learn: 0.0409010        total: 1m 45s   remaining: 1m 15s
292:    learn: 0.0407564        total: 1m 45s   remaining: 1m 14s
293:    learn: 0.0404978        total: 1m 46s   remaining: 1m 14s
294:    learn: 0.0403410        total: 1m 46s   remaining: 1m 13s
295:    learn: 0.0400741        total: 1m 46s   remaining: 1m 13s
296:    learn: 0.0398779        total: 1m 47s   remaining: 1m 13s
297:    learn: 0.0396779        total: 1m 47s   remaining: 1m 12s
298:    learn: 0.0394967        total: 1m 47s   remaining: 1m 12s
299:    learn: 0.0392522        total: 1m 48s   remaining: 1m 12s
300:    learn: 0.0390190        total: 1m 48s   remaining: 1m 11s
301:    learn: 0.0388400        total: 1m 48s   remaining: 1m 11s
302:    learn: 0.0386469        total: 1m 49s   remaining: 1m 11s
303:    learn: 0.0384840        total: 1m 49s   remaining: 1m 10s
304:    learn: 0.0383702        total: 1m 49s   remaining: 1m 10s
305:    learn: 0.0381871        total: 1m 50s   remaining: 1m 9s
306:    learn: 0.0380730        total: 1m 50s   remaining: 1m 9s
307:    learn: 0.0378766        total: 1m 51s   remaining: 1m 9s
308:    learn: 0.0376976        total: 1m 51s   remaining: 1m 8s
309:    learn: 0.0375277        total: 1m 51s   remaining: 1m 8s
310:    learn: 0.0373771        total: 1m 52s   remaining: 1m 8s
311:    learn: 0.0371596        total: 1m 52s   remaining: 1m 7s
312:    learn: 0.0369572        total: 1m 52s   remaining: 1m 7s
313:    learn: 0.0368286        total: 1m 53s   remaining: 1m 7s
314:    learn: 0.0366239        total: 1m 53s   remaining: 1m 6s
315:    learn: 0.0363925        total: 1m 53s   remaining: 1m 6s
316:    learn: 0.0362022        total: 1m 54s   remaining: 1m 5s
317:    learn: 0.0360524        total: 1m 54s   remaining: 1m 5s
318:    learn: 0.0358486        total: 1m 54s   remaining: 1m 5s
319:    learn: 0.0357095        total: 1m 55s   remaining: 1m 4s
320:    learn: 0.0355503        total: 1m 55s   remaining: 1m 4s
321:    learn: 0.0353047        total: 1m 55s   remaining: 1m 4s
322:    learn: 0.0351852        total: 1m 56s   remaining: 1m 3s
323:    learn: 0.0350012        total: 1m 56s   remaining: 1m 3s
324:    learn: 0.0348182        total: 1m 56s   remaining: 1m 2s
325:    learn: 0.0346462        total: 1m 57s   remaining: 1m 2s
326:    learn: 0.0344167        total: 1m 57s   remaining: 1m 2s
327:    learn: 0.0342029        total: 1m 58s   remaining: 1m 1s
328:    learn: 0.0340647        total: 1m 58s   remaining: 1m 1s
329:    learn: 0.0338637        total: 1m 58s   remaining: 1m 1s
330:    learn: 0.0336891        total: 1m 59s   remaining: 1m
331:    learn: 0.0335382        total: 1m 59s   remaining: 1m
332:    learn: 0.0332516        total: 1m 59s   remaining: 1m
333:    learn: 0.0331367        total: 2m       remaining: 59.7s
334:    learn: 0.0330089        total: 2m       remaining: 59.3s
335:    learn: 0.0328631        total: 2m       remaining: 59s
336:    learn: 0.0326790        total: 2m 1s    remaining: 58.7s
337:    learn: 0.0325344        total: 2m 1s    remaining: 58.3s
338:    learn: 0.0323941        total: 2m 2s    remaining: 58s
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339:    learn: 0.0322009        total: 2m 2s    remaining: 57.6s
340:    learn: 0.0320337        total: 2m 2s    remaining: 57.3s
341:    learn: 0.0318311        total: 2m 3s    remaining: 56.9s
342:    learn: 0.0316820        total: 2m 3s    remaining: 56.5s
343:    learn: 0.0315520        total: 2m 3s    remaining: 56.2s
344:    learn: 0.0314471        total: 2m 4s    remaining: 55.8s
345:    learn: 0.0313144        total: 2m 4s    remaining: 55.4s
346:    learn: 0.0311943        total: 2m 4s    remaining: 55.1s
347:    learn: 0.0310316        total: 2m 5s    remaining: 54.7s
348:    learn: 0.0309256        total: 2m 5s    remaining: 54.3s
349:    learn: 0.0308030        total: 2m 5s    remaining: 54s
350:    learn: 0.0306106        total: 2m 6s    remaining: 53.6s
351:    learn: 0.0304733        total: 2m 6s    remaining: 53.2s
352:    learn: 0.0303491        total: 2m 6s    remaining: 52.9s
353:    learn: 0.0301960        total: 2m 7s    remaining: 52.5s
354:    learn: 0.0300121        total: 2m 7s    remaining: 52.2s
355:    learn: 0.0298554        total: 2m 8s    remaining: 51.8s
356:    learn: 0.0297057        total: 2m 8s    remaining: 51.4s
357:    learn: 0.0295254        total: 2m 8s    remaining: 51.1s
358:    learn: 0.0294224        total: 2m 9s    remaining: 50.7s
359:    learn: 0.0292824        total: 2m 9s    remaining: 50.4s
360:    learn: 0.0291357        total: 2m 9s    remaining: 50s
361:    learn: 0.0289926        total: 2m 10s   remaining: 49.6s
362:    learn: 0.0288551        total: 2m 10s   remaining: 49.3s
363:    learn: 0.0286598        total: 2m 10s   remaining: 48.9s
364:    learn: 0.0285509        total: 2m 11s   remaining: 48.5s
365:    learn: 0.0284223        total: 2m 11s   remaining: 48.2s
366:    learn: 0.0282541        total: 2m 11s   remaining: 47.8s
367:    learn: 0.0280908        total: 2m 12s   remaining: 47.5s
368:    learn: 0.0279835        total: 2m 12s   remaining: 47.1s
369:    learn: 0.0278881        total: 2m 13s   remaining: 46.7s
370:    learn: 0.0277766        total: 2m 13s   remaining: 46.4s
371:    learn: 0.0276039        total: 2m 13s   remaining: 46s
372:    learn: 0.0274697        total: 2m 14s   remaining: 45.7s
373:    learn: 0.0273675        total: 2m 14s   remaining: 45.3s
374:    learn: 0.0272536        total: 2m 14s   remaining: 44.9s
375:    learn: 0.0271359        total: 2m 15s   remaining: 44.6s
376:    learn: 0.0270185        total: 2m 15s   remaining: 44.2s
377:    learn: 0.0269252        total: 2m 15s   remaining: 43.8s
378:    learn: 0.0267978        total: 2m 16s   remaining: 43.5s
379:    learn: 0.0267193        total: 2m 16s   remaining: 43.1s
380:    learn: 0.0265989        total: 2m 17s   remaining: 42.8s
381:    learn: 0.0264464        total: 2m 17s   remaining: 42.5s
382:    learn: 0.0263456        total: 2m 17s   remaining: 42.1s
383:    learn: 0.0262234        total: 2m 18s   remaining: 41.8s
384:    learn: 0.0261058        total: 2m 18s   remaining: 41.4s
385:    learn: 0.0260185        total: 2m 18s   remaining: 41s
386:    learn: 0.0259152        total: 2m 19s   remaining: 40.7s
387:    learn: 0.0257594        total: 2m 19s   remaining: 40.3s
388:    learn: 0.0256579        total: 2m 19s   remaining: 39.9s
389:    learn: 0.0255247        total: 2m 20s   remaining: 39.6s
390:    learn: 0.0254041        total: 2m 20s   remaining: 39.2s
391:    learn: 0.0253105        total: 2m 21s   remaining: 38.9s
392:    learn: 0.0252216        total: 2m 21s   remaining: 38.5s
393:    learn: 0.0251037        total: 2m 21s   remaining: 38.1s
394:    learn: 0.0250322        total: 2m 22s   remaining: 37.8s
395:    learn: 0.0249468        total: 2m 22s   remaining: 37.4s
396:    learn: 0.0248484        total: 2m 22s   remaining: 37s
397:    learn: 0.0247524        total: 2m 23s   remaining: 36.7s
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398:    learn: 0.0246374        total: 2m 23s   remaining: 36.3s
399:    learn: 0.0245340        total: 2m 23s   remaining: 36s
400:    learn: 0.0244353        total: 2m 24s   remaining: 35.6s
401:    learn: 0.0243389        total: 2m 24s   remaining: 35.2s
402:    learn: 0.0242383        total: 2m 24s   remaining: 34.9s
403:    learn: 0.0241150        total: 2m 25s   remaining: 34.5s
404:    learn: 0.0240450        total: 2m 25s   remaining: 34.1s
405:    learn: 0.0239270        total: 2m 25s   remaining: 33.8s
406:    learn: 0.0238688        total: 2m 26s   remaining: 33.4s
407:    learn: 0.0237698        total: 2m 26s   remaining: 33.1s
408:    learn: 0.0236577        total: 2m 26s   remaining: 32.7s
409:    learn: 0.0235868        total: 2m 27s   remaining: 32.3s
410:    learn: 0.0235199        total: 2m 27s   remaining: 32s
411:    learn: 0.0233688        total: 2m 28s   remaining: 31.6s
412:    learn: 0.0232697        total: 2m 28s   remaining: 31.3s
413:    learn: 0.0231798        total: 2m 28s   remaining: 30.9s
414:    learn: 0.0230984        total: 2m 29s   remaining: 30.5s
415:    learn: 0.0229959        total: 2m 29s   remaining: 30.2s
416:    learn: 0.0228823        total: 2m 29s   remaining: 29.8s
417:    learn: 0.0228080        total: 2m 30s   remaining: 29.5s
418:    learn: 0.0226707        total: 2m 30s   remaining: 29.1s
419:    learn: 0.0225957        total: 2m 30s   remaining: 28.7s
420:    learn: 0.0225063        total: 2m 31s   remaining: 28.4s
421:    learn: 0.0223920        total: 2m 31s   remaining: 28s
422:    learn: 0.0223039        total: 2m 31s   remaining: 27.6s
423:    learn: 0.0222227        total: 2m 32s   remaining: 27.3s
424:    learn: 0.0221226        total: 2m 32s   remaining: 26.9s
425:    learn: 0.0220473        total: 2m 33s   remaining: 26.6s
426:    learn: 0.0219533        total: 2m 33s   remaining: 26.2s
427:    learn: 0.0218556        total: 2m 33s   remaining: 25.9s
428:    learn: 0.0217630        total: 2m 34s   remaining: 25.5s
429:    learn: 0.0216606        total: 2m 34s   remaining: 25.2s
430:    learn: 0.0215959        total: 2m 34s   remaining: 24.8s
431:    learn: 0.0215384        total: 2m 35s   remaining: 24.4s
432:    learn: 0.0214357        total: 2m 35s   remaining: 24.1s
433:    learn: 0.0213556        total: 2m 36s   remaining: 23.7s
434:    learn: 0.0212896        total: 2m 36s   remaining: 23.4s
435:    learn: 0.0212048        total: 2m 36s   remaining: 23s
436:    learn: 0.0211301        total: 2m 37s   remaining: 22.6s
437:    learn: 0.0210442        total: 2m 37s   remaining: 22.3s
438:    learn: 0.0209425        total: 2m 37s   remaining: 21.9s
439:    learn: 0.0208861        total: 2m 38s   remaining: 21.6s
440:    learn: 0.0208027        total: 2m 38s   remaining: 21.2s
441:    learn: 0.0207009        total: 2m 38s   remaining: 20.8s
442:    learn: 0.0206246        total: 2m 39s   remaining: 20.5s
443:    learn: 0.0205662        total: 2m 39s   remaining: 20.1s
444:    learn: 0.0204971        total: 2m 39s   remaining: 19.8s
445:    learn: 0.0204131        total: 2m 40s   remaining: 19.4s
446:    learn: 0.0203668        total: 2m 40s   remaining: 19s
447:    learn: 0.0202531        total: 2m 40s   remaining: 18.7s
448:    learn: 0.0201841        total: 2m 41s   remaining: 18.3s
449:    learn: 0.0201337        total: 2m 41s   remaining: 18s
450:    learn: 0.0200309        total: 2m 41s   remaining: 17.6s
451:    learn: 0.0199735        total: 2m 42s   remaining: 17.2s
452:    learn: 0.0199118        total: 2m 42s   remaining: 16.9s
453:    learn: 0.0198619        total: 2m 43s   remaining: 16.5s
454:    learn: 0.0197560        total: 2m 43s   remaining: 16.2s
455:    learn: 0.0196584        total: 2m 43s   remaining: 15.8s
456:    learn: 0.0195579        total: 2m 44s   remaining: 15.4s
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457:    learn: 0.0194891        total: 2m 44s   remaining: 15.1s
458:    learn: 0.0194110        total: 2m 44s   remaining: 14.7s
459:    learn: 0.0193471        total: 2m 45s   remaining: 14.4s
460:    learn: 0.0192928        total: 2m 45s   remaining: 14s
461:    learn: 0.0192085        total: 2m 45s   remaining: 13.6s
462:    learn: 0.0191549        total: 2m 46s   remaining: 13.3s
463:    learn: 0.0191035        total: 2m 46s   remaining: 12.9s
464:    learn: 0.0190209        total: 2m 46s   remaining: 12.6s
465:    learn: 0.0189501        total: 2m 47s   remaining: 12.2s
466:    learn: 0.0188769        total: 2m 47s   remaining: 11.8s
467:    learn: 0.0187923        total: 2m 47s   remaining: 11.5s
468:    learn: 0.0187123        total: 2m 48s   remaining: 11.1s
469:    learn: 0.0186420        total: 2m 48s   remaining: 10.8s
470:    learn: 0.0185774        total: 2m 49s   remaining: 10.4s
471:    learn: 0.0184808        total: 2m 49s   remaining: 10.1s
472:    learn: 0.0184115        total: 2m 49s   remaining: 9.7s
473:    learn: 0.0183077        total: 2m 50s   remaining: 9.34s
474:    learn: 0.0182545        total: 2m 50s   remaining: 8.98s
475:    learn: 0.0182127        total: 2m 50s   remaining: 8.62s
476:    learn: 0.0181366        total: 2m 51s   remaining: 8.26s
477:    learn: 0.0180647        total: 2m 51s   remaining: 7.9s
478:    learn: 0.0179861        total: 2m 52s   remaining: 7.54s
479:    learn: 0.0179126        total: 2m 52s   remaining: 7.18s
480:    learn: 0.0178556        total: 2m 52s   remaining: 6.82s
481:    learn: 0.0177787        total: 2m 53s   remaining: 6.46s
482:    learn: 0.0177236        total: 2m 53s   remaining: 6.11s
483:    learn: 0.0176515        total: 2m 53s   remaining: 5.75s
484:    learn: 0.0175841        total: 2m 54s   remaining: 5.39s
485:    learn: 0.0175107        total: 2m 54s   remaining: 5.03s
486:    learn: 0.0174491        total: 2m 54s   remaining: 4.67s
487:    learn: 0.0173947        total: 2m 55s   remaining: 4.31s
488:    learn: 0.0173150        total: 2m 55s   remaining: 3.95s
489:    learn: 0.0172514        total: 2m 55s   remaining: 3.59s
490:    learn: 0.0171897        total: 2m 56s   remaining: 3.23s
491:    learn: 0.0171262        total: 2m 56s   remaining: 2.87s
492:    learn: 0.0170811        total: 2m 56s   remaining: 2.51s
493:    learn: 0.0170174        total: 2m 57s   remaining: 2.15s
494:    learn: 0.0169388        total: 2m 57s   remaining: 1.79s
495:    learn: 0.0168726        total: 2m 58s   remaining: 1.44s
496:    learn: 0.0168178        total: 2m 58s   remaining: 1.08s
497:    learn: 0.0167562        total: 2m 58s   remaining: 718ms
498:    learn: 0.0166882        total: 2m 59s   remaining: 359ms
499:    learn: 0.0166148        total: 2m 59s   remaining: 0us
[CV]  learning_rate=0.3, l2_leaf_reg=10, iterations=500, depth=10, ctr_b
order_count=50, border_count=10, score=0.8398192629140976, total= 3.1min
[CV] learning_rate=0.3, l2_leaf_reg=10, iterations=500, depth=10, ctr_bo
rder_count=50, border_count=10
0:      learn: 0.4798716        total: 367ms    remaining: 3m 3s
1:      learn: 0.3813296        total: 747ms    remaining: 3m 6s
2:      learn: 0.3363014        total: 1.1s     remaining: 3m 2s
3:      learn: 0.3138619        total: 1.47s    remaining: 3m 2s
4:      learn: 0.3016730        total: 1.84s    remaining: 3m 2s
5:      learn: 0.2923560        total: 2.19s    remaining: 3m
6:      learn: 0.2854479        total: 2.54s    remaining: 2m 59s
7:      learn: 0.2802105        total: 2.89s    remaining: 2m 57s
8:      learn: 0.2750427        total: 3.25s    remaining: 2m 57s
9:      learn: 0.2710059        total: 3.6s     remaining: 2m 56s
10:     learn: 0.2670228        total: 3.96s    remaining: 2m 56s
11:     learn: 0.2630953        total: 4.31s    remaining: 2m 55s
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12:     learn: 0.2596630        total: 4.67s    remaining: 2m 54s
13:     learn: 0.2566156        total: 5.01s    remaining: 2m 54s
14:     learn: 0.2540721        total: 5.36s    remaining: 2m 53s
15:     learn: 0.2510177        total: 5.71s    remaining: 2m 52s
16:     learn: 0.2481901        total: 6.06s    remaining: 2m 52s
17:     learn: 0.2454193        total: 6.41s    remaining: 2m 51s
18:     learn: 0.2427791        total: 6.79s    remaining: 2m 51s
19:     learn: 0.2400982        total: 7.14s    remaining: 2m 51s
20:     learn: 0.2379669        total: 7.49s    remaining: 2m 50s
21:     learn: 0.2355117        total: 7.85s    remaining: 2m 50s
22:     learn: 0.2329566        total: 8.21s    remaining: 2m 50s
23:     learn: 0.2303713        total: 8.56s    remaining: 2m 49s
24:     learn: 0.2283960        total: 8.91s    remaining: 2m 49s
25:     learn: 0.2261404        total: 9.27s    remaining: 2m 48s
26:     learn: 0.2239160        total: 9.62s    remaining: 2m 48s
27:     learn: 0.2220576        total: 9.97s    remaining: 2m 48s
28:     learn: 0.2196169        total: 10.4s    remaining: 2m 48s
29:     learn: 0.2175546        total: 10.8s    remaining: 2m 49s
30:     learn: 0.2156845        total: 11.3s    remaining: 2m 50s
31:     learn: 0.2137811        total: 11.6s    remaining: 2m 49s
32:     learn: 0.2119018        total: 12s      remaining: 2m 49s
33:     learn: 0.2099597        total: 12.4s    remaining: 2m 49s
34:     learn: 0.2078572        total: 12.8s    remaining: 2m 49s
35:     learn: 0.2060429        total: 13.1s    remaining: 2m 49s
36:     learn: 0.2045457        total: 13.5s    remaining: 2m 48s
37:     learn: 0.2026850        total: 13.9s    remaining: 2m 48s
38:     learn: 0.2011075        total: 14.2s    remaining: 2m 48s
39:     learn: 0.1997517        total: 14.6s    remaining: 2m 47s
40:     learn: 0.1981116        total: 15s      remaining: 2m 47s
41:     learn: 0.1963617        total: 15.3s    remaining: 2m 47s
42:     learn: 0.1946011        total: 15.7s    remaining: 2m 46s
43:     learn: 0.1927504        total: 16.1s    remaining: 2m 46s
44:     learn: 0.1911481        total: 16.4s    remaining: 2m 46s
45:     learn: 0.1893443        total: 16.8s    remaining: 2m 45s
46:     learn: 0.1879348        total: 17.2s    remaining: 2m 45s
47:     learn: 0.1865176        total: 17.5s    remaining: 2m 45s
48:     learn: 0.1852022        total: 17.9s    remaining: 2m 44s
49:     learn: 0.1835986        total: 18.3s    remaining: 2m 44s
50:     learn: 0.1822207        total: 18.6s    remaining: 2m 44s
51:     learn: 0.1806945        total: 19s      remaining: 2m 43s
52:     learn: 0.1792779        total: 19.4s    remaining: 2m 43s
53:     learn: 0.1778158        total: 19.7s    remaining: 2m 42s
54:     learn: 0.1763179        total: 20.1s    remaining: 2m 42s
55:     learn: 0.1749838        total: 20.4s    remaining: 2m 41s
56:     learn: 0.1735986        total: 20.8s    remaining: 2m 41s
57:     learn: 0.1722772        total: 21.1s    remaining: 2m 41s
58:     learn: 0.1712149        total: 21.5s    remaining: 2m 40s
59:     learn: 0.1698883        total: 21.8s    remaining: 2m 40s
60:     learn: 0.1688027        total: 22.2s    remaining: 2m 39s
61:     learn: 0.1674524        total: 22.6s    remaining: 2m 39s
62:     learn: 0.1661302        total: 22.9s    remaining: 2m 38s
63:     learn: 0.1647804        total: 23.3s    remaining: 2m 38s
64:     learn: 0.1636889        total: 23.6s    remaining: 2m 38s
65:     learn: 0.1627160        total: 24s      remaining: 2m 37s
66:     learn: 0.1613169        total: 24.3s    remaining: 2m 37s
67:     learn: 0.1602106        total: 24.7s    remaining: 2m 36s
68:     learn: 0.1588994        total: 25s      remaining: 2m 36s
69:     learn: 0.1578465        total: 25.4s    remaining: 2m 35s
70:     learn: 0.1567464        total: 25.7s    remaining: 2m 35s
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71:     learn: 0.1556804        total: 26.1s    remaining: 2m 35s
72:     learn: 0.1547067        total: 26.5s    remaining: 2m 34s
73:     learn: 0.1533952        total: 27s      remaining: 2m 35s
74:     learn: 0.1524386        total: 27.4s    remaining: 2m 35s
75:     learn: 0.1513727        total: 27.8s    remaining: 2m 34s
76:     learn: 0.1503327        total: 28.1s    remaining: 2m 34s
77:     learn: 0.1494175        total: 28.5s    remaining: 2m 34s
78:     learn: 0.1486576        total: 28.8s    remaining: 2m 33s
79:     learn: 0.1475608        total: 29.2s    remaining: 2m 33s
80:     learn: 0.1465432        total: 29.5s    remaining: 2m 32s
81:     learn: 0.1456750        total: 29.9s    remaining: 2m 32s
82:     learn: 0.1447150        total: 30.2s    remaining: 2m 31s
83:     learn: 0.1436944        total: 30.6s    remaining: 2m 31s
84:     learn: 0.1427624        total: 31s      remaining: 2m 31s
85:     learn: 0.1416033        total: 31.3s    remaining: 2m 30s
86:     learn: 0.1404538        total: 31.7s    remaining: 2m 30s
87:     learn: 0.1395075        total: 32s      remaining: 2m 29s
88:     learn: 0.1387198        total: 32.4s    remaining: 2m 29s
89:     learn: 0.1375736        total: 32.7s    remaining: 2m 29s
90:     learn: 0.1367017        total: 33.1s    remaining: 2m 28s
91:     learn: 0.1358201        total: 33.4s    remaining: 2m 28s
92:     learn: 0.1347390        total: 33.8s    remaining: 2m 27s
93:     learn: 0.1337313        total: 34.1s    remaining: 2m 27s
94:     learn: 0.1331293        total: 34.5s    remaining: 2m 27s
95:     learn: 0.1322939        total: 34.9s    remaining: 2m 26s
96:     learn: 0.1311677        total: 35.2s    remaining: 2m 26s
97:     learn: 0.1305835        total: 35.6s    remaining: 2m 25s
98:     learn: 0.1298120        total: 35.9s    remaining: 2m 25s
99:     learn: 0.1287927        total: 36.3s    remaining: 2m 25s
100:    learn: 0.1278015        total: 36.7s    remaining: 2m 24s
101:    learn: 0.1270397        total: 37s      remaining: 2m 24s
102:    learn: 0.1262276        total: 37.4s    remaining: 2m 23s
103:    learn: 0.1253937        total: 37.7s    remaining: 2m 23s
104:    learn: 0.1244262        total: 38.1s    remaining: 2m 23s
105:    learn: 0.1235872        total: 38.4s    remaining: 2m 22s
106:    learn: 0.1227002        total: 38.8s    remaining: 2m 22s
107:    learn: 0.1219523        total: 39.1s    remaining: 2m 22s
108:    learn: 0.1215092        total: 39.5s    remaining: 2m 21s
109:    learn: 0.1207533        total: 39.9s    remaining: 2m 21s
110:    learn: 0.1198109        total: 40.2s    remaining: 2m 20s
111:    learn: 0.1190914        total: 40.6s    remaining: 2m 20s
112:    learn: 0.1182736        total: 40.9s    remaining: 2m 20s
113:    learn: 0.1175392        total: 41.3s    remaining: 2m 19s
114:    learn: 0.1167657        total: 41.6s    remaining: 2m 19s
115:    learn: 0.1158961        total: 42s      remaining: 2m 18s
116:    learn: 0.1153249        total: 42.4s    remaining: 2m 18s
117:    learn: 0.1145248        total: 42.8s    remaining: 2m 18s
118:    learn: 0.1138015        total: 43.2s    remaining: 2m 18s
119:    learn: 0.1131083        total: 43.7s    remaining: 2m 18s
120:    learn: 0.1124746        total: 44s      remaining: 2m 17s
121:    learn: 0.1117310        total: 44.4s    remaining: 2m 17s
122:    learn: 0.1108595        total: 44.7s    remaining: 2m 17s
123:    learn: 0.1099236        total: 45.1s    remaining: 2m 16s
124:    learn: 0.1092530        total: 45.4s    remaining: 2m 16s
125:    learn: 0.1083674        total: 45.8s    remaining: 2m 15s
126:    learn: 0.1075264        total: 46.2s    remaining: 2m 15s
127:    learn: 0.1067178        total: 46.5s    remaining: 2m 15s
128:    learn: 0.1059006        total: 46.9s    remaining: 2m 14s
129:    learn: 0.1050891        total: 47.2s    remaining: 2m 14s
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130:    learn: 0.1043463        total: 47.6s    remaining: 2m 14s
131:    learn: 0.1034249        total: 47.9s    remaining: 2m 13s
132:    learn: 0.1027814        total: 48.3s    remaining: 2m 13s
133:    learn: 0.1023200        total: 48.7s    remaining: 2m 12s
134:    learn: 0.1015877        total: 49s      remaining: 2m 12s
135:    learn: 0.1008822        total: 49.4s    remaining: 2m 12s
136:    learn: 0.1002986        total: 49.8s    remaining: 2m 11s
137:    learn: 0.0995593        total: 50.1s    remaining: 2m 11s
138:    learn: 0.0985887        total: 50.5s    remaining: 2m 11s
139:    learn: 0.0979926        total: 50.8s    remaining: 2m 10s
140:    learn: 0.0974348        total: 51.2s    remaining: 2m 10s
141:    learn: 0.0970224        total: 51.5s    remaining: 2m 9s
142:    learn: 0.0962405        total: 51.9s    remaining: 2m 9s
143:    learn: 0.0956703        total: 52.2s    remaining: 2m 9s
144:    learn: 0.0949460        total: 52.6s    remaining: 2m 8s
145:    learn: 0.0943493        total: 53s      remaining: 2m 8s
146:    learn: 0.0936569        total: 53.3s    remaining: 2m 8s
147:    learn: 0.0931443        total: 53.7s    remaining: 2m 7s
148:    learn: 0.0925285        total: 54.1s    remaining: 2m 7s
149:    learn: 0.0920124        total: 54.4s    remaining: 2m 7s
150:    learn: 0.0913326        total: 54.8s    remaining: 2m 6s
151:    learn: 0.0907406        total: 55.2s    remaining: 2m 6s
152:    learn: 0.0901804        total: 55.5s    remaining: 2m 5s
153:    learn: 0.0896613        total: 55.9s    remaining: 2m 5s
154:    learn: 0.0892310        total: 56.2s    remaining: 2m 5s
155:    learn: 0.0887867        total: 56.6s    remaining: 2m 4s
156:    learn: 0.0882862        total: 56.9s    remaining: 2m 4s
157:    learn: 0.0877356        total: 57.3s    remaining: 2m 3s
158:    learn: 0.0870321        total: 57.6s    remaining: 2m 3s
159:    learn: 0.0865500        total: 58s      remaining: 2m 3s
160:    learn: 0.0860189        total: 58.4s    remaining: 2m 2s
161:    learn: 0.0855214        total: 58.8s    remaining: 2m 2s
162:    learn: 0.0849771        total: 59.3s    remaining: 2m 2s
163:    learn: 0.0843934        total: 59.6s    remaining: 2m 2s
164:    learn: 0.0838919        total: 60s      remaining: 2m 1s
165:    learn: 0.0833485        total: 1m       remaining: 2m 1s
166:    learn: 0.0827850        total: 1m       remaining: 2m 1s
167:    learn: 0.0822756        total: 1m 1s    remaining: 2m
168:    learn: 0.0817850        total: 1m 1s    remaining: 2m
169:    learn: 0.0813674        total: 1m 1s    remaining: 1m 59s
170:    learn: 0.0809109        total: 1m 2s    remaining: 1m 59s
171:    learn: 0.0803931        total: 1m 2s    remaining: 1m 59s
172:    learn: 0.0800102        total: 1m 2s    remaining: 1m 58s
173:    learn: 0.0794368        total: 1m 3s    remaining: 1m 58s
174:    learn: 0.0789585        total: 1m 3s    remaining: 1m 57s
175:    learn: 0.0784161        total: 1m 3s    remaining: 1m 57s
176:    learn: 0.0779568        total: 1m 4s    remaining: 1m 57s
177:    learn: 0.0775227        total: 1m 4s    remaining: 1m 56s
178:    learn: 0.0771958        total: 1m 4s    remaining: 1m 56s
179:    learn: 0.0766537        total: 1m 5s    remaining: 1m 56s
180:    learn: 0.0760936        total: 1m 5s    remaining: 1m 55s
181:    learn: 0.0756417        total: 1m 6s    remaining: 1m 55s
182:    learn: 0.0751364        total: 1m 6s    remaining: 1m 55s
183:    learn: 0.0746251        total: 1m 6s    remaining: 1m 54s
184:    learn: 0.0740113        total: 1m 7s    remaining: 1m 54s
185:    learn: 0.0735148        total: 1m 7s    remaining: 1m 54s
186:    learn: 0.0731825        total: 1m 7s    remaining: 1m 53s
187:    learn: 0.0728510        total: 1m 8s    remaining: 1m 53s
188:    learn: 0.0722396        total: 1m 8s    remaining: 1m 52s
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189:    learn: 0.0719497        total: 1m 8s    remaining: 1m 52s
190:    learn: 0.0715645        total: 1m 9s    remaining: 1m 52s
191:    learn: 0.0711641        total: 1m 9s    remaining: 1m 51s
192:    learn: 0.0708518        total: 1m 10s   remaining: 1m 51s
193:    learn: 0.0704043        total: 1m 10s   remaining: 1m 51s
194:    learn: 0.0699948        total: 1m 10s   remaining: 1m 50s
195:    learn: 0.0696701        total: 1m 11s   remaining: 1m 50s
196:    learn: 0.0692543        total: 1m 11s   remaining: 1m 49s
197:    learn: 0.0689867        total: 1m 11s   remaining: 1m 49s
198:    learn: 0.0686894        total: 1m 12s   remaining: 1m 49s
199:    learn: 0.0681744        total: 1m 12s   remaining: 1m 48s
200:    learn: 0.0677376        total: 1m 12s   remaining: 1m 48s
201:    learn: 0.0673605        total: 1m 13s   remaining: 1m 48s
202:    learn: 0.0668505        total: 1m 13s   remaining: 1m 47s
203:    learn: 0.0664660        total: 1m 13s   remaining: 1m 47s
204:    learn: 0.0658169        total: 1m 14s   remaining: 1m 46s
205:    learn: 0.0653927        total: 1m 14s   remaining: 1m 46s
206:    learn: 0.0649923        total: 1m 15s   remaining: 1m 46s
207:    learn: 0.0644566        total: 1m 15s   remaining: 1m 46s
208:    learn: 0.0641725        total: 1m 15s   remaining: 1m 45s
209:    learn: 0.0638504        total: 1m 16s   remaining: 1m 45s
210:    learn: 0.0635024        total: 1m 16s   remaining: 1m 45s
211:    learn: 0.0630950        total: 1m 17s   remaining: 1m 44s
212:    learn: 0.0628003        total: 1m 17s   remaining: 1m 44s
213:    learn: 0.0624265        total: 1m 17s   remaining: 1m 43s
214:    learn: 0.0621076        total: 1m 18s   remaining: 1m 43s
215:    learn: 0.0617151        total: 1m 18s   remaining: 1m 43s
216:    learn: 0.0612399        total: 1m 18s   remaining: 1m 42s
217:    learn: 0.0607399        total: 1m 19s   remaining: 1m 42s
218:    learn: 0.0604287        total: 1m 19s   remaining: 1m 42s
219:    learn: 0.0601423        total: 1m 19s   remaining: 1m 41s
220:    learn: 0.0597414        total: 1m 20s   remaining: 1m 41s
221:    learn: 0.0593743        total: 1m 20s   remaining: 1m 40s
222:    learn: 0.0591120        total: 1m 20s   remaining: 1m 40s
223:    learn: 0.0587876        total: 1m 21s   remaining: 1m 40s
224:    learn: 0.0585120        total: 1m 21s   remaining: 1m 39s
225:    learn: 0.0582543        total: 1m 22s   remaining: 1m 39s
226:    learn: 0.0579813        total: 1m 22s   remaining: 1m 39s
227:    learn: 0.0576053        total: 1m 22s   remaining: 1m 38s
228:    learn: 0.0573663        total: 1m 23s   remaining: 1m 38s
229:    learn: 0.0570121        total: 1m 23s   remaining: 1m 37s
230:    learn: 0.0565332        total: 1m 23s   remaining: 1m 37s
231:    learn: 0.0562951        total: 1m 24s   remaining: 1m 37s
232:    learn: 0.0560549        total: 1m 24s   remaining: 1m 36s
233:    learn: 0.0557298        total: 1m 24s   remaining: 1m 36s
234:    learn: 0.0554729        total: 1m 25s   remaining: 1m 36s
235:    learn: 0.0551640        total: 1m 25s   remaining: 1m 35s
236:    learn: 0.0548879        total: 1m 25s   remaining: 1m 35s
237:    learn: 0.0547174        total: 1m 26s   remaining: 1m 34s
238:    learn: 0.0544342        total: 1m 26s   remaining: 1m 34s
239:    learn: 0.0541360        total: 1m 26s   remaining: 1m 34s
240:    learn: 0.0539452        total: 1m 27s   remaining: 1m 33s
241:    learn: 0.0536171        total: 1m 27s   remaining: 1m 33s
242:    learn: 0.0533259        total: 1m 28s   remaining: 1m 33s
243:    learn: 0.0529115        total: 1m 28s   remaining: 1m 32s
244:    learn: 0.0527365        total: 1m 28s   remaining: 1m 32s
245:    learn: 0.0523930        total: 1m 29s   remaining: 1m 31s
246:    learn: 0.0520143        total: 1m 29s   remaining: 1m 31s
247:    learn: 0.0517260        total: 1m 29s   remaining: 1m 31s
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248:    learn: 0.0514251        total: 1m 30s   remaining: 1m 30s
249:    learn: 0.0511521        total: 1m 30s   remaining: 1m 30s
250:    learn: 0.0508521        total: 1m 31s   remaining: 1m 30s
251:    learn: 0.0505111        total: 1m 31s   remaining: 1m 29s
252:    learn: 0.0503071        total: 1m 31s   remaining: 1m 29s
253:    learn: 0.0500496        total: 1m 32s   remaining: 1m 29s
254:    learn: 0.0497465        total: 1m 32s   remaining: 1m 28s
255:    learn: 0.0495020        total: 1m 32s   remaining: 1m 28s
256:    learn: 0.0492040        total: 1m 33s   remaining: 1m 28s
257:    learn: 0.0488788        total: 1m 33s   remaining: 1m 27s
258:    learn: 0.0486819        total: 1m 33s   remaining: 1m 27s
259:    learn: 0.0484016        total: 1m 34s   remaining: 1m 27s
260:    learn: 0.0481527        total: 1m 34s   remaining: 1m 26s
261:    learn: 0.0479255        total: 1m 34s   remaining: 1m 26s
262:    learn: 0.0477062        total: 1m 35s   remaining: 1m 25s
263:    learn: 0.0475282        total: 1m 35s   remaining: 1m 25s
264:    learn: 0.0472324        total: 1m 36s   remaining: 1m 25s
265:    learn: 0.0469943        total: 1m 36s   remaining: 1m 24s
266:    learn: 0.0467114        total: 1m 36s   remaining: 1m 24s
267:    learn: 0.0464429        total: 1m 37s   remaining: 1m 24s
268:    learn: 0.0462719        total: 1m 37s   remaining: 1m 23s
269:    learn: 0.0460624        total: 1m 37s   remaining: 1m 23s
270:    learn: 0.0457951        total: 1m 38s   remaining: 1m 22s
271:    learn: 0.0455820        total: 1m 38s   remaining: 1m 22s
272:    learn: 0.0452051        total: 1m 38s   remaining: 1m 22s
273:    learn: 0.0450184        total: 1m 39s   remaining: 1m 21s
274:    learn: 0.0447986        total: 1m 39s   remaining: 1m 21s
275:    learn: 0.0446066        total: 1m 39s   remaining: 1m 21s
276:    learn: 0.0444366        total: 1m 40s   remaining: 1m 20s
277:    learn: 0.0442634        total: 1m 40s   remaining: 1m 20s
278:    learn: 0.0440518        total: 1m 40s   remaining: 1m 19s
279:    learn: 0.0438737        total: 1m 41s   remaining: 1m 19s
280:    learn: 0.0437339        total: 1m 41s   remaining: 1m 19s
281:    learn: 0.0434560        total: 1m 41s   remaining: 1m 18s
282:    learn: 0.0433008        total: 1m 42s   remaining: 1m 18s
283:    learn: 0.0431143        total: 1m 42s   remaining: 1m 18s
284:    learn: 0.0429580        total: 1m 43s   remaining: 1m 17s
285:    learn: 0.0426410        total: 1m 43s   remaining: 1m 17s
286:    learn: 0.0424338        total: 1m 43s   remaining: 1m 17s
287:    learn: 0.0422309        total: 1m 44s   remaining: 1m 16s
288:    learn: 0.0420243        total: 1m 44s   remaining: 1m 16s
289:    learn: 0.0417718        total: 1m 44s   remaining: 1m 15s
290:    learn: 0.0415618        total: 1m 45s   remaining: 1m 15s
291:    learn: 0.0413113        total: 1m 45s   remaining: 1m 15s
292:    learn: 0.0410851        total: 1m 45s   remaining: 1m 14s
293:    learn: 0.0408912        total: 1m 46s   remaining: 1m 14s
294:    learn: 0.0407047        total: 1m 46s   remaining: 1m 14s
295:    learn: 0.0405110        total: 1m 47s   remaining: 1m 13s
296:    learn: 0.0402758        total: 1m 47s   remaining: 1m 13s
297:    learn: 0.0401120        total: 1m 47s   remaining: 1m 13s
298:    learn: 0.0399106        total: 1m 48s   remaining: 1m 12s
299:    learn: 0.0397913        total: 1m 48s   remaining: 1m 12s
300:    learn: 0.0395684        total: 1m 48s   remaining: 1m 12s
301:    learn: 0.0393940        total: 1m 49s   remaining: 1m 11s
302:    learn: 0.0391801        total: 1m 49s   remaining: 1m 11s
303:    learn: 0.0389963        total: 1m 50s   remaining: 1m 10s
304:    learn: 0.0387624        total: 1m 50s   remaining: 1m 10s
305:    learn: 0.0386581        total: 1m 50s   remaining: 1m 10s
306:    learn: 0.0384564        total: 1m 51s   remaining: 1m 9s
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307:    learn: 0.0382889        total: 1m 51s   remaining: 1m 9s
308:    learn: 0.0381358        total: 1m 51s   remaining: 1m 9s
309:    learn: 0.0379793        total: 1m 52s   remaining: 1m 8s
310:    learn: 0.0378051        total: 1m 52s   remaining: 1m 8s
311:    learn: 0.0375893        total: 1m 52s   remaining: 1m 8s
312:    learn: 0.0374968        total: 1m 53s   remaining: 1m 7s
313:    learn: 0.0373271        total: 1m 53s   remaining: 1m 7s
314:    learn: 0.0371825        total: 1m 54s   remaining: 1m 7s
315:    learn: 0.0369945        total: 1m 54s   remaining: 1m 6s
316:    learn: 0.0368010        total: 1m 54s   remaining: 1m 6s
317:    learn: 0.0366557        total: 1m 55s   remaining: 1m 5s
318:    learn: 0.0364602        total: 1m 55s   remaining: 1m 5s
319:    learn: 0.0362488        total: 1m 55s   remaining: 1m 5s
320:    learn: 0.0360589        total: 1m 56s   remaining: 1m 4s
321:    learn: 0.0358642        total: 1m 56s   remaining: 1m 4s
322:    learn: 0.0357100        total: 1m 56s   remaining: 1m 4s
323:    learn: 0.0355666        total: 1m 57s   remaining: 1m 3s
324:    learn: 0.0354519        total: 1m 57s   remaining: 1m 3s
325:    learn: 0.0352958        total: 1m 58s   remaining: 1m 3s
326:    learn: 0.0351437        total: 1m 58s   remaining: 1m 2s
327:    learn: 0.0350194        total: 1m 58s   remaining: 1m 2s
328:    learn: 0.0348425        total: 1m 59s   remaining: 1m 1s
329:    learn: 0.0346444        total: 1m 59s   remaining: 1m 1s
330:    learn: 0.0344726        total: 1m 59s   remaining: 1m 1s
331:    learn: 0.0342996        total: 2m       remaining: 1m
332:    learn: 0.0340626        total: 2m       remaining: 1m
333:    learn: 0.0339137        total: 2m       remaining: 1m
334:    learn: 0.0337881        total: 2m 1s    remaining: 59.7s
335:    learn: 0.0336608        total: 2m 1s    remaining: 59.3s
336:    learn: 0.0335001        total: 2m 1s    remaining: 59s
337:    learn: 0.0333341        total: 2m 2s    remaining: 58.6s
338:    learn: 0.0331607        total: 2m 2s    remaining: 58.3s
339:    learn: 0.0329907        total: 2m 3s    remaining: 58s
340:    learn: 0.0328447        total: 2m 3s    remaining: 57.6s
341:    learn: 0.0326638        total: 2m 3s    remaining: 57.3s
342:    learn: 0.0325420        total: 2m 4s    remaining: 56.9s
343:    learn: 0.0324171        total: 2m 4s    remaining: 56.5s
344:    learn: 0.0322626        total: 2m 4s    remaining: 56.2s
345:    learn: 0.0321413        total: 2m 5s    remaining: 55.8s
346:    learn: 0.0319750        total: 2m 5s    remaining: 55.4s
347:    learn: 0.0317949        total: 2m 6s    remaining: 55.1s
348:    learn: 0.0316130        total: 2m 6s    remaining: 54.7s
349:    learn: 0.0313970        total: 2m 6s    remaining: 54.3s
350:    learn: 0.0312791        total: 2m 7s    remaining: 54s
351:    learn: 0.0311468        total: 2m 7s    remaining: 53.6s
352:    learn: 0.0310117        total: 2m 7s    remaining: 53.2s
353:    learn: 0.0308569        total: 2m 8s    remaining: 52.9s
354:    learn: 0.0307328        total: 2m 8s    remaining: 52.5s
355:    learn: 0.0305654        total: 2m 8s    remaining: 52.1s
356:    learn: 0.0304177        total: 2m 9s    remaining: 51.8s
357:    learn: 0.0303117        total: 2m 9s    remaining: 51.4s
358:    learn: 0.0301749        total: 2m 9s    remaining: 51s
359:    learn: 0.0300658        total: 2m 10s   remaining: 50.7s
360:    learn: 0.0299241        total: 2m 10s   remaining: 50.3s
361:    learn: 0.0297955        total: 2m 11s   remaining: 49.9s
362:    learn: 0.0296766        total: 2m 11s   remaining: 49.6s
363:    learn: 0.0296066        total: 2m 11s   remaining: 49.2s
364:    learn: 0.0294294        total: 2m 12s   remaining: 48.8s
365:    learn: 0.0293033        total: 2m 12s   remaining: 48.5s
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366:    learn: 0.0291263        total: 2m 12s   remaining: 48.1s
367:    learn: 0.0290092        total: 2m 13s   remaining: 47.8s
368:    learn: 0.0289011        total: 2m 13s   remaining: 47.4s
369:    learn: 0.0287610        total: 2m 13s   remaining: 47s
370:    learn: 0.0286080        total: 2m 14s   remaining: 46.7s
371:    learn: 0.0284636        total: 2m 14s   remaining: 46.4s
372:    learn: 0.0283481        total: 2m 15s   remaining: 46s
373:    learn: 0.0282219        total: 2m 15s   remaining: 45.7s
374:    learn: 0.0281254        total: 2m 16s   remaining: 45.3s
375:    learn: 0.0280166        total: 2m 16s   remaining: 45s
376:    learn: 0.0279197        total: 2m 16s   remaining: 44.7s
377:    learn: 0.0277730        total: 2m 17s   remaining: 44.3s
378:    learn: 0.0276565        total: 2m 17s   remaining: 44s
379:    learn: 0.0275418        total: 2m 18s   remaining: 43.6s
380:    learn: 0.0274608        total: 2m 18s   remaining: 43.3s
381:    learn: 0.0273376        total: 2m 19s   remaining: 43s
382:    learn: 0.0272317        total: 2m 19s   remaining: 42.7s
383:    learn: 0.0271245        total: 2m 20s   remaining: 42.4s
384:    learn: 0.0269804        total: 2m 20s   remaining: 42s
385:    learn: 0.0268442        total: 2m 21s   remaining: 41.7s
386:    learn: 0.0267244        total: 2m 21s   remaining: 41.3s
387:    learn: 0.0266410        total: 2m 22s   remaining: 41s
388:    learn: 0.0264514        total: 2m 22s   remaining: 40.7s
389:    learn: 0.0263454        total: 2m 23s   remaining: 40.4s
390:    learn: 0.0262239        total: 2m 23s   remaining: 40s
391:    learn: 0.0260873        total: 2m 23s   remaining: 39.7s
392:    learn: 0.0259900        total: 2m 24s   remaining: 39.3s
393:    learn: 0.0258957        total: 2m 24s   remaining: 38.9s
394:    learn: 0.0257961        total: 2m 25s   remaining: 38.6s
395:    learn: 0.0256350        total: 2m 25s   remaining: 38.2s
396:    learn: 0.0255244        total: 2m 25s   remaining: 37.8s
397:    learn: 0.0254094        total: 2m 26s   remaining: 37.5s
398:    learn: 0.0253142        total: 2m 26s   remaining: 37.1s
399:    learn: 0.0251946        total: 2m 26s   remaining: 36.7s
400:    learn: 0.0251081        total: 2m 27s   remaining: 36.3s
401:    learn: 0.0249908        total: 2m 27s   remaining: 36s
402:    learn: 0.0248903        total: 2m 27s   remaining: 35.6s
403:    learn: 0.0247670        total: 2m 28s   remaining: 35.2s
404:    learn: 0.0246744        total: 2m 28s   remaining: 34.9s
405:    learn: 0.0245960        total: 2m 28s   remaining: 34.5s
406:    learn: 0.0244921        total: 2m 29s   remaining: 34.1s
407:    learn: 0.0244280        total: 2m 29s   remaining: 33.8s
408:    learn: 0.0243135        total: 2m 30s   remaining: 33.4s
409:    learn: 0.0241945        total: 2m 30s   remaining: 33s
410:    learn: 0.0241172        total: 2m 30s   remaining: 32.6s
411:    learn: 0.0240034        total: 2m 31s   remaining: 32.3s
412:    learn: 0.0239326        total: 2m 31s   remaining: 31.9s
413:    learn: 0.0238607        total: 2m 31s   remaining: 31.5s
414:    learn: 0.0237767        total: 2m 32s   remaining: 31.2s
415:    learn: 0.0236767        total: 2m 32s   remaining: 30.8s
416:    learn: 0.0235455        total: 2m 32s   remaining: 30.4s
417:    learn: 0.0234616        total: 2m 33s   remaining: 30.1s
418:    learn: 0.0233594        total: 2m 33s   remaining: 29.7s
419:    learn: 0.0232806        total: 2m 33s   remaining: 29.3s
420:    learn: 0.0231343        total: 2m 34s   remaining: 29s
421:    learn: 0.0230367        total: 2m 34s   remaining: 28.6s
422:    learn: 0.0229455        total: 2m 35s   remaining: 28.3s
423:    learn: 0.0228553        total: 2m 35s   remaining: 27.9s
424:    learn: 0.0227754        total: 2m 35s   remaining: 27.5s
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425:    learn: 0.0226536        total: 2m 36s   remaining: 27.1s
426:    learn: 0.0225593        total: 2m 36s   remaining: 26.8s
427:    learn: 0.0224745        total: 2m 37s   remaining: 26.4s
428:    learn: 0.0223914        total: 2m 37s   remaining: 26s
429:    learn: 0.0222761        total: 2m 37s   remaining: 25.7s
430:    learn: 0.0221714        total: 2m 38s   remaining: 25.3s
431:    learn: 0.0220836        total: 2m 38s   remaining: 24.9s
432:    learn: 0.0220227        total: 2m 38s   remaining: 24.6s
433:    learn: 0.0219211        total: 2m 39s   remaining: 24.2s
434:    learn: 0.0218399        total: 2m 39s   remaining: 23.8s
435:    learn: 0.0217627        total: 2m 39s   remaining: 23.5s
436:    learn: 0.0216698        total: 2m 40s   remaining: 23.1s
437:    learn: 0.0215516        total: 2m 40s   remaining: 22.7s
438:    learn: 0.0214621        total: 2m 40s   remaining: 22.4s
439:    learn: 0.0213845        total: 2m 41s   remaining: 22s
440:    learn: 0.0212808        total: 2m 41s   remaining: 21.6s
441:    learn: 0.0211776        total: 2m 41s   remaining: 21.3s
442:    learn: 0.0211325        total: 2m 42s   remaining: 20.9s
443:    learn: 0.0210590        total: 2m 42s   remaining: 20.5s
444:    learn: 0.0209576        total: 2m 43s   remaining: 20.2s
445:    learn: 0.0208795        total: 2m 43s   remaining: 19.8s
446:    learn: 0.0207956        total: 2m 43s   remaining: 19.4s
447:    learn: 0.0207441        total: 2m 44s   remaining: 19.1s
448:    learn: 0.0206637        total: 2m 44s   remaining: 18.7s
449:    learn: 0.0205598        total: 2m 44s   remaining: 18.3s
450:    learn: 0.0204774        total: 2m 45s   remaining: 18s
451:    learn: 0.0204123        total: 2m 45s   remaining: 17.6s
452:    learn: 0.0203438        total: 2m 45s   remaining: 17.2s
453:    learn: 0.0202672        total: 2m 46s   remaining: 16.9s
454:    learn: 0.0201998        total: 2m 46s   remaining: 16.5s
455:    learn: 0.0201233        total: 2m 47s   remaining: 16.1s
456:    learn: 0.0200362        total: 2m 47s   remaining: 15.7s
457:    learn: 0.0199616        total: 2m 47s   remaining: 15.4s
458:    learn: 0.0198755        total: 2m 48s   remaining: 15s
459:    learn: 0.0197777        total: 2m 48s   remaining: 14.6s
460:    learn: 0.0197209        total: 2m 48s   remaining: 14.3s
461:    learn: 0.0196622        total: 2m 49s   remaining: 13.9s
462:    learn: 0.0195998        total: 2m 49s   remaining: 13.5s
463:    learn: 0.0195108        total: 2m 49s   remaining: 13.2s
464:    learn: 0.0194307        total: 2m 50s   remaining: 12.8s
465:    learn: 0.0193472        total: 2m 50s   remaining: 12.5s
466:    learn: 0.0192641        total: 2m 51s   remaining: 12.1s
467:    learn: 0.0191716        total: 2m 51s   remaining: 11.7s
468:    learn: 0.0191175        total: 2m 51s   remaining: 11.4s
469:    learn: 0.0190453        total: 2m 52s   remaining: 11s
470:    learn: 0.0190029        total: 2m 52s   remaining: 10.6s
471:    learn: 0.0189314        total: 2m 52s   remaining: 10.3s
472:    learn: 0.0188594        total: 2m 53s   remaining: 9.89s
473:    learn: 0.0187947        total: 2m 53s   remaining: 9.52s
474:    learn: 0.0187329        total: 2m 54s   remaining: 9.16s
475:    learn: 0.0186817        total: 2m 54s   remaining: 8.79s
476:    learn: 0.0186010        total: 2m 54s   remaining: 8.43s
477:    learn: 0.0185185        total: 2m 55s   remaining: 8.06s
478:    learn: 0.0184381        total: 2m 55s   remaining: 7.69s
479:    learn: 0.0183481        total: 2m 55s   remaining: 7.32s
480:    learn: 0.0182834        total: 2m 56s   remaining: 6.96s
481:    learn: 0.0181942        total: 2m 56s   remaining: 6.59s
482:    learn: 0.0181283        total: 2m 56s   remaining: 6.22s
483:    learn: 0.0180707        total: 2m 57s   remaining: 5.86s
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484:    learn: 0.0180107        total: 2m 57s   remaining: 5.49s
485:    learn: 0.0179539        total: 2m 57s   remaining: 5.13s
486:    learn: 0.0178908        total: 2m 58s   remaining: 4.76s
487:    learn: 0.0178407        total: 2m 58s   remaining: 4.39s
488:    learn: 0.0177577        total: 2m 59s   remaining: 4.03s
489:    learn: 0.0176861        total: 2m 59s   remaining: 3.66s
490:    learn: 0.0176240        total: 2m 59s   remaining: 3.29s
491:    learn: 0.0175778        total: 3m       remaining: 2.93s
492:    learn: 0.0174654        total: 3m       remaining: 2.56s
493:    learn: 0.0174207        total: 3m       remaining: 2.2s
494:    learn: 0.0173557        total: 3m 1s    remaining: 1.83s
495:    learn: 0.0172855        total: 3m 1s    remaining: 1.46s
496:    learn: 0.0172281        total: 3m 1s    remaining: 1.1s
497:    learn: 0.0171650        total: 3m 2s    remaining: 732ms
498:    learn: 0.0171256        total: 3m 2s    remaining: 366ms
499:    learn: 0.0170744        total: 3m 2s    remaining: 0us
[CV]  learning_rate=0.3, l2_leaf_reg=10, iterations=500, depth=10, ctr_b
order_count=50, border_count=10, score=0.8450486311079927, total= 3.2min

[Parallel(n_jobs=1)]: Done  15 out of  15 | elapsed: 23.5min finished
```

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0:      learn: 0.6664252        total: 210ms    remaining: 3m 29s
1:      learn: 0.6419084        total: 476ms    remaining: 3m 57s
2:      learn: 0.6187816        total: 693ms    remaining: 3m 50s
3:      learn: 0.5973321        total: 929ms    remaining: 3m 51s
4:      learn: 0.5770151        total: 1.16s    remaining: 3m 51s
5:      learn: 0.5584875        total: 1.35s    remaining: 3m 44s
6:      learn: 0.5413837        total: 1.59s    remaining: 3m 45s
7:      learn: 0.5256106        total: 1.82s    remaining: 3m 45s
8:      learn: 0.5110618        total: 2.04s    remaining: 3m 44s
9:      learn: 0.4975185        total: 2.25s    remaining: 3m 42s
10:     learn: 0.4847986        total: 2.45s    remaining: 3m 40s
11:     learn: 0.4729042        total: 2.63s    remaining: 3m 36s
12:     learn: 0.4618277        total: 2.84s    remaining: 3m 35s
13:     learn: 0.4516937        total: 3.06s    remaining: 3m 35s
14:     learn: 0.4421164        total: 3.29s    remaining: 3m 36s
15:     learn: 0.4325883        total: 3.5s     remaining: 3m 35s
16:     learn: 0.4238668        total: 3.71s    remaining: 3m 34s
17:     learn: 0.4160535        total: 3.93s    remaining: 3m 34s
18:     learn: 0.4085753        total: 4.15s    remaining: 3m 34s
19:     learn: 0.4016526        total: 4.33s    remaining: 3m 32s
20:     learn: 0.3949289        total: 4.52s    remaining: 3m 30s
21:     learn: 0.3887377        total: 4.73s    remaining: 3m 30s
22:     learn: 0.3827219        total: 4.92s    remaining: 3m 28s
23:     learn: 0.3773389        total: 5.09s    remaining: 3m 27s
24:     learn: 0.3725105        total: 5.26s    remaining: 3m 25s
25:     learn: 0.3680824        total: 5.47s    remaining: 3m 25s
26:     learn: 0.3635389        total: 5.66s    remaining: 3m 24s
27:     learn: 0.3594056        total: 5.87s    remaining: 3m 23s
28:     learn: 0.3555285        total: 6.04s    remaining: 3m 22s
29:     learn: 0.3520908        total: 6.25s    remaining: 3m 22s
30:     learn: 0.3487799        total: 6.51s    remaining: 3m 23s
31:     learn: 0.3455499        total: 6.76s    remaining: 3m 24s
32:     learn: 0.3426361        total: 7.02s    remaining: 3m 25s
33:     learn: 0.3398982        total: 7.27s    remaining: 3m 26s
34:     learn: 0.3371079        total: 7.5s     remaining: 3m 26s
35:     learn: 0.3345766        total: 7.7s     remaining: 3m 26s
36:     learn: 0.3320606        total: 7.9s     remaining: 3m 25s
37:     learn: 0.3299241        total: 8.1s     remaining: 3m 24s
38:     learn: 0.3277165        total: 8.26s    remaining: 3m 23s
39:     learn: 0.3256423        total: 8.46s    remaining: 3m 22s
40:     learn: 0.3237237        total: 8.62s    remaining: 3m 21s
41:     learn: 0.3217219        total: 8.8s     remaining: 3m 20s
42:     learn: 0.3199862        total: 8.97s    remaining: 3m 19s
43:     learn: 0.3183112        total: 9.15s    remaining: 3m 18s
44:     learn: 0.3167227        total: 9.33s    remaining: 3m 17s
45:     learn: 0.3151608        total: 9.52s    remaining: 3m 17s
46:     learn: 0.3137172        total: 9.69s    remaining: 3m 16s
47:     learn: 0.3122847        total: 9.87s    remaining: 3m 15s
48:     learn: 0.3109433        total: 10s      remaining: 3m 14s
49:     learn: 0.3096997        total: 10.2s    remaining: 3m 14s
50:     learn: 0.3084620        total: 10.4s    remaining: 3m 13s
51:     learn: 0.3073681        total: 10.6s    remaining: 3m 12s
52:     learn: 0.3062582        total: 10.7s    remaining: 3m 11s
53:     learn: 0.3052367        total: 10.9s    remaining: 3m 11s
54:     learn: 0.3042068        total: 11.1s    remaining: 3m 10s
55:     learn: 0.3033016        total: 11.3s    remaining: 3m 9s
56:     learn: 0.3023207        total: 11.4s    remaining: 3m 8s
57:     learn: 0.3013559        total: 11.6s    remaining: 3m 8s
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58:     learn: 0.3004544        total: 11.8s    remaining: 3m 8s
59:     learn: 0.2996442        total: 12s      remaining: 3m 7s
60:     learn: 0.2988670        total: 12.1s    remaining: 3m 6s
61:     learn: 0.2980908        total: 12.3s    remaining: 3m 6s
62:     learn: 0.2973941        total: 12.5s    remaining: 3m 5s
63:     learn: 0.2966810        total: 12.7s    remaining: 3m 5s
64:     learn: 0.2959398        total: 12.9s    remaining: 3m 4s
65:     learn: 0.2952421        total: 13s      remaining: 3m 4s
66:     learn: 0.2945849        total: 13.2s    remaining: 3m 4s
67:     learn: 0.2939628        total: 13.4s    remaining: 3m 3s
68:     learn: 0.2933441        total: 13.6s    remaining: 3m 3s
69:     learn: 0.2927595        total: 13.8s    remaining: 3m 2s
70:     learn: 0.2921433        total: 13.9s    remaining: 3m 2s
71:     learn: 0.2915796        total: 14.1s    remaining: 3m 1s
72:     learn: 0.2910166        total: 14.3s    remaining: 3m 1s
73:     learn: 0.2905044        total: 14.5s    remaining: 3m
74:     learn: 0.2899726        total: 14.6s    remaining: 3m
75:     learn: 0.2894419        total: 14.8s    remaining: 3m
76:     learn: 0.2889304        total: 15s      remaining: 2m 59s
77:     learn: 0.2884307        total: 15.2s    remaining: 2m 59s
78:     learn: 0.2879684        total: 15.3s    remaining: 2m 58s
79:     learn: 0.2874977        total: 15.5s    remaining: 2m 58s
80:     learn: 0.2870355        total: 15.7s    remaining: 2m 58s
81:     learn: 0.2865838        total: 15.9s    remaining: 2m 57s
82:     learn: 0.2861394        total: 16.1s    remaining: 2m 57s
83:     learn: 0.2856917        total: 16.3s    remaining: 2m 57s
84:     learn: 0.2852789        total: 16.4s    remaining: 2m 56s
85:     learn: 0.2848493        total: 16.6s    remaining: 2m 56s
86:     learn: 0.2844345        total: 16.8s    remaining: 2m 56s
87:     learn: 0.2840265        total: 17s      remaining: 2m 56s
88:     learn: 0.2835847        total: 17.2s    remaining: 2m 55s
89:     learn: 0.2831849        total: 17.3s    remaining: 2m 55s
90:     learn: 0.2827974        total: 17.5s    remaining: 2m 55s
91:     learn: 0.2824163        total: 17.7s    remaining: 2m 54s
92:     learn: 0.2820230        total: 17.9s    remaining: 2m 54s
93:     learn: 0.2816502        total: 18.1s    remaining: 2m 54s
94:     learn: 0.2812649        total: 18.2s    remaining: 2m 53s
95:     learn: 0.2808903        total: 18.4s    remaining: 2m 53s
96:     learn: 0.2805280        total: 18.6s    remaining: 2m 53s
97:     learn: 0.2802044        total: 18.8s    remaining: 2m 52s
98:     learn: 0.2798544        total: 19s      remaining: 2m 52s
99:     learn: 0.2795168        total: 19.1s    remaining: 2m 52s
100:    learn: 0.2791722        total: 19.3s    remaining: 2m 51s
101:    learn: 0.2788427        total: 19.5s    remaining: 2m 51s
102:    learn: 0.2785065        total: 19.7s    remaining: 2m 51s
103:    learn: 0.2781765        total: 19.8s    remaining: 2m 51s
104:    learn: 0.2777945        total: 20.1s    remaining: 2m 51s
105:    learn: 0.2774497        total: 20.2s    remaining: 2m 50s
106:    learn: 0.2771163        total: 20.4s    remaining: 2m 50s
107:    learn: 0.2767795        total: 20.6s    remaining: 2m 50s
108:    learn: 0.2764627        total: 20.8s    remaining: 2m 49s
109:    learn: 0.2761460        total: 20.9s    remaining: 2m 49s
110:    learn: 0.2758224        total: 21.1s    remaining: 2m 49s
111:    learn: 0.2755026        total: 21.3s    remaining: 2m 48s
112:    learn: 0.2751851        total: 21.5s    remaining: 2m 48s
113:    learn: 0.2748583        total: 21.7s    remaining: 2m 48s
114:    learn: 0.2745673        total: 21.8s    remaining: 2m 48s
115:    learn: 0.2742545        total: 22s      remaining: 2m 47s
116:    learn: 0.2739581        total: 22.2s    remaining: 2m 47s
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117:    learn: 0.2736602        total: 22.4s    remaining: 2m 47s
118:    learn: 0.2733746        total: 22.6s    remaining: 2m 47s
119:    learn: 0.2730741        total: 22.8s    remaining: 2m 47s
120:    learn: 0.2727743        total: 23s      remaining: 2m 47s
121:    learn: 0.2724872        total: 23.2s    remaining: 2m 47s
122:    learn: 0.2721983        total: 23.5s    remaining: 2m 47s
123:    learn: 0.2719132        total: 23.6s    remaining: 2m 47s
124:    learn: 0.2716287        total: 23.8s    remaining: 2m 46s
125:    learn: 0.2713530        total: 24s      remaining: 2m 46s
126:    learn: 0.2710703        total: 24.2s    remaining: 2m 46s
127:    learn: 0.2707865        total: 24.3s    remaining: 2m 45s
128:    learn: 0.2705200        total: 24.5s    remaining: 2m 45s
129:    learn: 0.2702409        total: 24.7s    remaining: 2m 45s
130:    learn: 0.2699622        total: 24.9s    remaining: 2m 45s
131:    learn: 0.2696808        total: 25.1s    remaining: 2m 44s
132:    learn: 0.2694114        total: 25.2s    remaining: 2m 44s
133:    learn: 0.2691481        total: 25.4s    remaining: 2m 44s
134:    learn: 0.2688945        total: 25.6s    remaining: 2m 44s
135:    learn: 0.2686380        total: 25.8s    remaining: 2m 43s
136:    learn: 0.2683611        total: 26s      remaining: 2m 43s
137:    learn: 0.2680978        total: 26.1s    remaining: 2m 43s
138:    learn: 0.2678183        total: 26.3s    remaining: 2m 43s
139:    learn: 0.2675708        total: 26.5s    remaining: 2m 42s
140:    learn: 0.2673156        total: 26.7s    remaining: 2m 42s
141:    learn: 0.2670799        total: 26.9s    remaining: 2m 42s
142:    learn: 0.2668152        total: 27.1s    remaining: 2m 42s
143:    learn: 0.2665773        total: 27.2s    remaining: 2m 41s
144:    learn: 0.2663227        total: 27.4s    remaining: 2m 41s
145:    learn: 0.2660936        total: 27.6s    remaining: 2m 41s
146:    learn: 0.2658532        total: 27.8s    remaining: 2m 41s
147:    learn: 0.2656022        total: 28s      remaining: 2m 41s
148:    learn: 0.2653511        total: 28.2s    remaining: 2m 40s
149:    learn: 0.2650993        total: 28.3s    remaining: 2m 40s
150:    learn: 0.2648560        total: 28.5s    remaining: 2m 40s
151:    learn: 0.2646116        total: 28.7s    remaining: 2m 40s
152:    learn: 0.2643889        total: 28.9s    remaining: 2m 39s
153:    learn: 0.2641387        total: 29.1s    remaining: 2m 39s
154:    learn: 0.2638982        total: 29.3s    remaining: 2m 39s
155:    learn: 0.2636322        total: 29.5s    remaining: 2m 39s
156:    learn: 0.2634101        total: 29.7s    remaining: 2m 39s
157:    learn: 0.2631700        total: 29.8s    remaining: 2m 39s
158:    learn: 0.2629135        total: 30s      remaining: 2m 38s
159:    learn: 0.2627137        total: 30.2s    remaining: 2m 38s
160:    learn: 0.2624746        total: 30.4s    remaining: 2m 38s
161:    learn: 0.2622398        total: 30.5s    remaining: 2m 37s
162:    learn: 0.2619996        total: 30.7s    remaining: 2m 37s
163:    learn: 0.2617673        total: 30.9s    remaining: 2m 37s
164:    learn: 0.2615245        total: 31.1s    remaining: 2m 37s
165:    learn: 0.2613155        total: 31.3s    remaining: 2m 37s
166:    learn: 0.2610846        total: 31.4s    remaining: 2m 36s
167:    learn: 0.2608734        total: 31.6s    remaining: 2m 36s
168:    learn: 0.2606549        total: 31.8s    remaining: 2m 36s
169:    learn: 0.2604306        total: 32s      remaining: 2m 36s
170:    learn: 0.2602430        total: 32.2s    remaining: 2m 35s
171:    learn: 0.2600425        total: 32.4s    remaining: 2m 35s
172:    learn: 0.2598159        total: 32.5s    remaining: 2m 35s
173:    learn: 0.2596134        total: 32.7s    remaining: 2m 35s
174:    learn: 0.2593974        total: 32.9s    remaining: 2m 35s
175:    learn: 0.2591919        total: 33.1s    remaining: 2m 34s
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176:    learn: 0.2589782        total: 33.2s    remaining: 2m 34s
177:    learn: 0.2587804        total: 33.4s    remaining: 2m 34s
178:    learn: 0.2585463        total: 33.7s    remaining: 2m 34s
179:    learn: 0.2583479        total: 33.9s    remaining: 2m 34s
180:    learn: 0.2581374        total: 34.1s    remaining: 2m 34s
181:    learn: 0.2579191        total: 34.3s    remaining: 2m 34s
182:    learn: 0.2577200        total: 34.5s    remaining: 2m 33s
183:    learn: 0.2575172        total: 34.6s    remaining: 2m 33s
184:    learn: 0.2572991        total: 34.8s    remaining: 2m 33s
185:    learn: 0.2570798        total: 35s      remaining: 2m 33s
186:    learn: 0.2569048        total: 35.2s    remaining: 2m 33s
187:    learn: 0.2567068        total: 35.4s    remaining: 2m 32s
188:    learn: 0.2565082        total: 35.6s    remaining: 2m 32s
189:    learn: 0.2563018        total: 35.8s    remaining: 2m 32s
190:    learn: 0.2561078        total: 36s      remaining: 2m 32s
191:    learn: 0.2559056        total: 36.2s    remaining: 2m 32s
192:    learn: 0.2556994        total: 36.4s    remaining: 2m 32s
193:    learn: 0.2555144        total: 36.6s    remaining: 2m 31s
194:    learn: 0.2553138        total: 36.8s    remaining: 2m 31s
195:    learn: 0.2551050        total: 37s      remaining: 2m 31s
196:    learn: 0.2549037        total: 37.2s    remaining: 2m 31s
197:    learn: 0.2547065        total: 37.4s    remaining: 2m 31s
198:    learn: 0.2545247        total: 37.6s    remaining: 2m 31s
199:    learn: 0.2543248        total: 37.7s    remaining: 2m 30s
200:    learn: 0.2541237        total: 37.9s    remaining: 2m 30s
201:    learn: 0.2539254        total: 38.1s    remaining: 2m 30s
202:    learn: 0.2537108        total: 38.3s    remaining: 2m 30s
203:    learn: 0.2535049        total: 38.6s    remaining: 2m 30s
204:    learn: 0.2533206        total: 38.8s    remaining: 2m 30s
205:    learn: 0.2531189        total: 39s      remaining: 2m 30s
206:    learn: 0.2529464        total: 39.2s    remaining: 2m 30s
207:    learn: 0.2527751        total: 39.5s    remaining: 2m 30s
208:    learn: 0.2525874        total: 39.6s    remaining: 2m 30s
209:    learn: 0.2523783        total: 39.8s    remaining: 2m 29s
210:    learn: 0.2521840        total: 40.1s    remaining: 2m 29s
211:    learn: 0.2519917        total: 40.2s    remaining: 2m 29s
212:    learn: 0.2517987        total: 40.4s    remaining: 2m 29s
213:    learn: 0.2516062        total: 40.6s    remaining: 2m 29s
214:    learn: 0.2514379        total: 40.8s    remaining: 2m 28s
215:    learn: 0.2512539        total: 41s      remaining: 2m 28s
216:    learn: 0.2510734        total: 41.1s    remaining: 2m 28s
217:    learn: 0.2508853        total: 41.3s    remaining: 2m 28s
218:    learn: 0.2507085        total: 41.5s    remaining: 2m 28s
219:    learn: 0.2505234        total: 41.7s    remaining: 2m 27s
220:    learn: 0.2503261        total: 41.9s    remaining: 2m 27s
221:    learn: 0.2501393        total: 42.2s    remaining: 2m 27s
222:    learn: 0.2499665        total: 42.3s    remaining: 2m 27s
223:    learn: 0.2497785        total: 42.5s    remaining: 2m 27s
224:    learn: 0.2495899        total: 42.7s    remaining: 2m 27s
225:    learn: 0.2494035        total: 42.9s    remaining: 2m 26s
226:    learn: 0.2492377        total: 43.1s    remaining: 2m 26s
227:    learn: 0.2490722        total: 43.3s    remaining: 2m 26s
228:    learn: 0.2488965        total: 43.4s    remaining: 2m 26s
229:    learn: 0.2487177        total: 43.6s    remaining: 2m 26s
230:    learn: 0.2485548        total: 43.8s    remaining: 2m 25s
231:    learn: 0.2483808        total: 44s      remaining: 2m 25s
232:    learn: 0.2482111        total: 44.2s    remaining: 2m 25s
233:    learn: 0.2480299        total: 44.3s    remaining: 2m 25s
234:    learn: 0.2478545        total: 44.5s    remaining: 2m 24s
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235:    learn: 0.2476795        total: 44.7s    remaining: 2m 24s
236:    learn: 0.2475097        total: 44.9s    remaining: 2m 24s
237:    learn: 0.2473554        total: 45.1s    remaining: 2m 24s
238:    learn: 0.2471956        total: 45.3s    remaining: 2m 24s
239:    learn: 0.2470211        total: 45.4s    remaining: 2m 23s
240:    learn: 0.2468744        total: 45.7s    remaining: 2m 23s
241:    learn: 0.2467166        total: 45.8s    remaining: 2m 23s
242:    learn: 0.2465407        total: 46s      remaining: 2m 23s
243:    learn: 0.2463687        total: 46.2s    remaining: 2m 23s
244:    learn: 0.2462077        total: 46.4s    remaining: 2m 22s
245:    learn: 0.2460395        total: 46.6s    remaining: 2m 22s
246:    learn: 0.2458822        total: 46.7s    remaining: 2m 22s
247:    learn: 0.2457211        total: 46.9s    remaining: 2m 22s
248:    learn: 0.2455616        total: 47.1s    remaining: 2m 22s
249:    learn: 0.2454015        total: 47.3s    remaining: 2m 21s
250:    learn: 0.2452513        total: 47.4s    remaining: 2m 21s
251:    learn: 0.2450819        total: 47.6s    remaining: 2m 21s
252:    learn: 0.2449215        total: 47.8s    remaining: 2m 21s
253:    learn: 0.2447643        total: 48s      remaining: 2m 21s
254:    learn: 0.2446121        total: 48.2s    remaining: 2m 20s
255:    learn: 0.2444503        total: 48.4s    remaining: 2m 20s
256:    learn: 0.2442741        total: 48.6s    remaining: 2m 20s
257:    learn: 0.2441014        total: 48.8s    remaining: 2m 20s
258:    learn: 0.2439435        total: 49s      remaining: 2m 20s
259:    learn: 0.2437824        total: 49.2s    remaining: 2m 19s
260:    learn: 0.2436320        total: 49.3s    remaining: 2m 19s
261:    learn: 0.2434906        total: 49.5s    remaining: 2m 19s
262:    learn: 0.2433407        total: 49.7s    remaining: 2m 19s
263:    learn: 0.2431960        total: 49.9s    remaining: 2m 19s
264:    learn: 0.2430318        total: 50.1s    remaining: 2m 18s
265:    learn: 0.2428930        total: 50.3s    remaining: 2m 18s
266:    learn: 0.2427301        total: 50.4s    remaining: 2m 18s
267:    learn: 0.2425930        total: 50.6s    remaining: 2m 18s
268:    learn: 0.2424510        total: 50.8s    remaining: 2m 18s
269:    learn: 0.2422840        total: 51s      remaining: 2m 17s
270:    learn: 0.2421119        total: 51.2s    remaining: 2m 17s
271:    learn: 0.2419635        total: 51.4s    remaining: 2m 17s
272:    learn: 0.2418258        total: 51.6s    remaining: 2m 17s
273:    learn: 0.2416925        total: 51.8s    remaining: 2m 17s
274:    learn: 0.2415697        total: 51.9s    remaining: 2m 16s
275:    learn: 0.2414312        total: 52.1s    remaining: 2m 16s
276:    learn: 0.2412812        total: 52.3s    remaining: 2m 16s
277:    learn: 0.2411247        total: 52.5s    remaining: 2m 16s
278:    learn: 0.2409810        total: 52.7s    remaining: 2m 16s
279:    learn: 0.2408418        total: 52.9s    remaining: 2m 15s
280:    learn: 0.2407109        total: 53.1s    remaining: 2m 15s
281:    learn: 0.2405606        total: 53.2s    remaining: 2m 15s
282:    learn: 0.2404226        total: 53.5s    remaining: 2m 15s
283:    learn: 0.2402830        total: 53.6s    remaining: 2m 15s
284:    learn: 0.2401510        total: 53.8s    remaining: 2m 15s
285:    learn: 0.2400006        total: 54s      remaining: 2m 14s
286:    learn: 0.2398525        total: 54.2s    remaining: 2m 14s
287:    learn: 0.2397232        total: 54.4s    remaining: 2m 14s
288:    learn: 0.2395705        total: 54.7s    remaining: 2m 14s
289:    learn: 0.2394428        total: 54.9s    remaining: 2m 14s
290:    learn: 0.2392942        total: 55.2s    remaining: 2m 14s
291:    learn: 0.2391644        total: 55.4s    remaining: 2m 14s
292:    learn: 0.2390405        total: 55.6s    remaining: 2m 14s
293:    learn: 0.2389054        total: 55.7s    remaining: 2m 13s
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294:    learn: 0.2387602        total: 55.9s    remaining: 2m 13s
295:    learn: 0.2386158        total: 56.1s    remaining: 2m 13s
296:    learn: 0.2384781        total: 56.3s    remaining: 2m 13s
297:    learn: 0.2383472        total: 56.5s    remaining: 2m 13s
298:    learn: 0.2382296        total: 56.7s    remaining: 2m 12s
299:    learn: 0.2380896        total: 56.9s    remaining: 2m 12s
300:    learn: 0.2379481        total: 57.1s    remaining: 2m 12s
301:    learn: 0.2378273        total: 57.2s    remaining: 2m 12s
302:    learn: 0.2376993        total: 57.4s    remaining: 2m 12s
303:    learn: 0.2375781        total: 57.6s    remaining: 2m 11s
304:    learn: 0.2374433        total: 57.8s    remaining: 2m 11s
305:    learn: 0.2373123        total: 58s      remaining: 2m 11s
306:    learn: 0.2371779        total: 58.2s    remaining: 2m 11s
307:    learn: 0.2370543        total: 58.4s    remaining: 2m 11s
308:    learn: 0.2369140        total: 58.6s    remaining: 2m 10s
309:    learn: 0.2367699        total: 58.8s    remaining: 2m 10s
310:    learn: 0.2366221        total: 59s      remaining: 2m 10s
311:    learn: 0.2364822        total: 59.1s    remaining: 2m 10s
312:    learn: 0.2363549        total: 59.3s    remaining: 2m 10s
313:    learn: 0.2362199        total: 59.5s    remaining: 2m 10s
314:    learn: 0.2360860        total: 59.7s    remaining: 2m 9s
315:    learn: 0.2359713        total: 59.9s    remaining: 2m 9s
316:    learn: 0.2358423        total: 1m       remaining: 2m 9s
317:    learn: 0.2357267        total: 1m       remaining: 2m 9s
318:    learn: 0.2355810        total: 1m       remaining: 2m 9s
319:    learn: 0.2354533        total: 1m       remaining: 2m 8s
320:    learn: 0.2353162        total: 1m       remaining: 2m 8s
321:    learn: 0.2351915        total: 1m 1s    remaining: 2m 8s
322:    learn: 0.2350577        total: 1m 1s    remaining: 2m 8s
323:    learn: 0.2349177        total: 1m 1s    remaining: 2m 8s
324:    learn: 0.2347936        total: 1m 1s    remaining: 2m 7s
325:    learn: 0.2346576        total: 1m 1s    remaining: 2m 7s
326:    learn: 0.2345207        total: 1m 1s    remaining: 2m 7s
327:    learn: 0.2343799        total: 1m 2s    remaining: 2m 7s
328:    learn: 0.2342460        total: 1m 2s    remaining: 2m 7s
329:    learn: 0.2340997        total: 1m 2s    remaining: 2m 7s
330:    learn: 0.2339712        total: 1m 2s    remaining: 2m 6s
331:    learn: 0.2338473        total: 1m 2s    remaining: 2m 6s
332:    learn: 0.2337296        total: 1m 3s    remaining: 2m 6s
333:    learn: 0.2335940        total: 1m 3s    remaining: 2m 6s
334:    learn: 0.2334697        total: 1m 3s    remaining: 2m 6s
335:    learn: 0.2333348        total: 1m 3s    remaining: 2m 5s
336:    learn: 0.2332072        total: 1m 3s    remaining: 2m 5s
337:    learn: 0.2330692        total: 1m 4s    remaining: 2m 5s
338:    learn: 0.2329572        total: 1m 4s    remaining: 2m 5s
339:    learn: 0.2328456        total: 1m 4s    remaining: 2m 4s
340:    learn: 0.2327160        total: 1m 4s    remaining: 2m 4s
341:    learn: 0.2325954        total: 1m 4s    remaining: 2m 4s
342:    learn: 0.2324759        total: 1m 4s    remaining: 2m 4s
343:    learn: 0.2323538        total: 1m 5s    remaining: 2m 4s
344:    learn: 0.2322200        total: 1m 5s    remaining: 2m 4s
345:    learn: 0.2320976        total: 1m 5s    remaining: 2m 4s
346:    learn: 0.2319749        total: 1m 5s    remaining: 2m 3s
347:    learn: 0.2318558        total: 1m 5s    remaining: 2m 3s
348:    learn: 0.2317248        total: 1m 6s    remaining: 2m 3s
349:    learn: 0.2316104        total: 1m 6s    remaining: 2m 3s
350:    learn: 0.2314964        total: 1m 6s    remaining: 2m 3s
351:    learn: 0.2313699        total: 1m 6s    remaining: 2m 2s
352:    learn: 0.2312497        total: 1m 6s    remaining: 2m 2s
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353:    learn: 0.2311244        total: 1m 7s    remaining: 2m 2s
354:    learn: 0.2310134        total: 1m 7s    remaining: 2m 2s
355:    learn: 0.2308928        total: 1m 7s    remaining: 2m 2s
356:    learn: 0.2307635        total: 1m 7s    remaining: 2m 1s
357:    learn: 0.2306506        total: 1m 7s    remaining: 2m 1s
358:    learn: 0.2305398        total: 1m 8s    remaining: 2m 1s
359:    learn: 0.2304092        total: 1m 8s    remaining: 2m 1s
360:    learn: 0.2302931        total: 1m 8s    remaining: 2m 1s
361:    learn: 0.2301774        total: 1m 8s    remaining: 2m
362:    learn: 0.2300573        total: 1m 8s    remaining: 2m
363:    learn: 0.2299334        total: 1m 9s    remaining: 2m
364:    learn: 0.2298242        total: 1m 9s    remaining: 2m
365:    learn: 0.2297092        total: 1m 9s    remaining: 2m
366:    learn: 0.2296159        total: 1m 9s    remaining: 2m
367:    learn: 0.2295043        total: 1m 9s    remaining: 1m 59s
368:    learn: 0.2293886        total: 1m 9s    remaining: 1m 59s
369:    learn: 0.2292813        total: 1m 10s   remaining: 1m 59s
370:    learn: 0.2291643        total: 1m 10s   remaining: 1m 59s
371:    learn: 0.2290480        total: 1m 10s   remaining: 1m 59s
372:    learn: 0.2289195        total: 1m 10s   remaining: 1m 59s
373:    learn: 0.2288075        total: 1m 11s   remaining: 1m 59s
374:    learn: 0.2287009        total: 1m 11s   remaining: 1m 58s
375:    learn: 0.2285847        total: 1m 11s   remaining: 1m 58s
376:    learn: 0.2284691        total: 1m 11s   remaining: 1m 58s
377:    learn: 0.2283425        total: 1m 11s   remaining: 1m 58s
378:    learn: 0.2282108        total: 1m 12s   remaining: 1m 58s
379:    learn: 0.2281008        total: 1m 12s   remaining: 1m 58s
380:    learn: 0.2279810        total: 1m 12s   remaining: 1m 57s
381:    learn: 0.2278589        total: 1m 12s   remaining: 1m 57s
382:    learn: 0.2277598        total: 1m 12s   remaining: 1m 57s
383:    learn: 0.2276442        total: 1m 13s   remaining: 1m 57s
384:    learn: 0.2275293        total: 1m 13s   remaining: 1m 57s
385:    learn: 0.2274178        total: 1m 13s   remaining: 1m 56s
386:    learn: 0.2273002        total: 1m 13s   remaining: 1m 56s
387:    learn: 0.2271842        total: 1m 13s   remaining: 1m 56s
388:    learn: 0.2270817        total: 1m 14s   remaining: 1m 56s
389:    learn: 0.2269584        total: 1m 14s   remaining: 1m 56s
390:    learn: 0.2268507        total: 1m 14s   remaining: 1m 55s
391:    learn: 0.2267340        total: 1m 14s   remaining: 1m 55s
392:    learn: 0.2266217        total: 1m 14s   remaining: 1m 55s
393:    learn: 0.2265099        total: 1m 15s   remaining: 1m 55s
394:    learn: 0.2263934        total: 1m 15s   remaining: 1m 55s
395:    learn: 0.2262754        total: 1m 15s   remaining: 1m 54s
396:    learn: 0.2261716        total: 1m 15s   remaining: 1m 54s
397:    learn: 0.2260454        total: 1m 15s   remaining: 1m 54s
398:    learn: 0.2259321        total: 1m 15s   remaining: 1m 54s
399:    learn: 0.2258217        total: 1m 16s   remaining: 1m 54s
400:    learn: 0.2257044        total: 1m 16s   remaining: 1m 54s
401:    learn: 0.2255981        total: 1m 16s   remaining: 1m 53s
402:    learn: 0.2254937        total: 1m 16s   remaining: 1m 53s
403:    learn: 0.2253802        total: 1m 16s   remaining: 1m 53s
404:    learn: 0.2252784        total: 1m 17s   remaining: 1m 53s
405:    learn: 0.2251702        total: 1m 17s   remaining: 1m 53s
406:    learn: 0.2250636        total: 1m 17s   remaining: 1m 52s
407:    learn: 0.2249473        total: 1m 17s   remaining: 1m 52s
408:    learn: 0.2248474        total: 1m 17s   remaining: 1m 52s
409:    learn: 0.2247269        total: 1m 18s   remaining: 1m 52s
410:    learn: 0.2246190        total: 1m 18s   remaining: 1m 52s
411:    learn: 0.2245088        total: 1m 18s   remaining: 1m 51s
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412:    learn: 0.2244124        total: 1m 18s   remaining: 1m 51s
413:    learn: 0.2243095        total: 1m 18s   remaining: 1m 51s
414:    learn: 0.2242017        total: 1m 18s   remaining: 1m 51s
415:    learn: 0.2240980        total: 1m 19s   remaining: 1m 51s
416:    learn: 0.2239905        total: 1m 19s   remaining: 1m 50s
417:    learn: 0.2238862        total: 1m 19s   remaining: 1m 50s
418:    learn: 0.2237861        total: 1m 19s   remaining: 1m 50s
419:    learn: 0.2236888        total: 1m 19s   remaining: 1m 50s
420:    learn: 0.2235843        total: 1m 20s   remaining: 1m 50s
421:    learn: 0.2234679        total: 1m 20s   remaining: 1m 49s
422:    learn: 0.2233541        total: 1m 20s   remaining: 1m 49s
423:    learn: 0.2232504        total: 1m 20s   remaining: 1m 49s
424:    learn: 0.2231364        total: 1m 20s   remaining: 1m 49s
425:    learn: 0.2230315        total: 1m 21s   remaining: 1m 49s
426:    learn: 0.2229211        total: 1m 21s   remaining: 1m 48s
427:    learn: 0.2228163        total: 1m 21s   remaining: 1m 48s
428:    learn: 0.2227235        total: 1m 21s   remaining: 1m 48s
429:    learn: 0.2226232        total: 1m 21s   remaining: 1m 48s
430:    learn: 0.2225020        total: 1m 21s   remaining: 1m 48s
431:    learn: 0.2224062        total: 1m 22s   remaining: 1m 48s
432:    learn: 0.2222994        total: 1m 22s   remaining: 1m 47s
433:    learn: 0.2222065        total: 1m 22s   remaining: 1m 47s
434:    learn: 0.2220983        total: 1m 22s   remaining: 1m 47s
435:    learn: 0.2219986        total: 1m 22s   remaining: 1m 47s
436:    learn: 0.2218955        total: 1m 23s   remaining: 1m 47s
437:    learn: 0.2218052        total: 1m 23s   remaining: 1m 46s
438:    learn: 0.2217079        total: 1m 23s   remaining: 1m 46s
439:    learn: 0.2216102        total: 1m 23s   remaining: 1m 46s
440:    learn: 0.2215092        total: 1m 23s   remaining: 1m 46s
441:    learn: 0.2214200        total: 1m 24s   remaining: 1m 46s
442:    learn: 0.2213187        total: 1m 24s   remaining: 1m 45s
443:    learn: 0.2212173        total: 1m 24s   remaining: 1m 45s
444:    learn: 0.2211148        total: 1m 24s   remaining: 1m 45s
445:    learn: 0.2210214        total: 1m 24s   remaining: 1m 45s
446:    learn: 0.2209317        total: 1m 24s   remaining: 1m 45s
447:    learn: 0.2208282        total: 1m 25s   remaining: 1m 44s
448:    learn: 0.2207253        total: 1m 25s   remaining: 1m 44s
449:    learn: 0.2206209        total: 1m 25s   remaining: 1m 44s
450:    learn: 0.2205260        total: 1m 25s   remaining: 1m 44s
451:    learn: 0.2204306        total: 1m 25s   remaining: 1m 44s
452:    learn: 0.2203256        total: 1m 26s   remaining: 1m 43s
453:    learn: 0.2202253        total: 1m 26s   remaining: 1m 43s
454:    learn: 0.2201306        total: 1m 26s   remaining: 1m 43s
455:    learn: 0.2200397        total: 1m 26s   remaining: 1m 43s
456:    learn: 0.2199404        total: 1m 27s   remaining: 1m 43s
457:    learn: 0.2198399        total: 1m 27s   remaining: 1m 43s
458:    learn: 0.2197435        total: 1m 27s   remaining: 1m 43s
459:    learn: 0.2196510        total: 1m 27s   remaining: 1m 42s
460:    learn: 0.2195502        total: 1m 27s   remaining: 1m 42s
461:    learn: 0.2194501        total: 1m 28s   remaining: 1m 42s
462:    learn: 0.2193574        total: 1m 28s   remaining: 1m 42s
463:    learn: 0.2192633        total: 1m 28s   remaining: 1m 42s
464:    learn: 0.2191586        total: 1m 28s   remaining: 1m 41s
465:    learn: 0.2190462        total: 1m 28s   remaining: 1m 41s
466:    learn: 0.2189448        total: 1m 29s   remaining: 1m 41s
467:    learn: 0.2188527        total: 1m 29s   remaining: 1m 41s
468:    learn: 0.2187671        total: 1m 29s   remaining: 1m 41s
469:    learn: 0.2186689        total: 1m 29s   remaining: 1m 40s
470:    learn: 0.2185806        total: 1m 29s   remaining: 1m 40s
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471:    learn: 0.2184901        total: 1m 29s   remaining: 1m 40s
472:    learn: 0.2183916        total: 1m 30s   remaining: 1m 40s
473:    learn: 0.2182845        total: 1m 30s   remaining: 1m 40s
474:    learn: 0.2181879        total: 1m 30s   remaining: 1m 40s
475:    learn: 0.2180917        total: 1m 30s   remaining: 1m 39s
476:    learn: 0.2179958        total: 1m 30s   remaining: 1m 39s
477:    learn: 0.2179033        total: 1m 31s   remaining: 1m 39s
478:    learn: 0.2178085        total: 1m 31s   remaining: 1m 39s
479:    learn: 0.2177282        total: 1m 31s   remaining: 1m 39s
480:    learn: 0.2176375        total: 1m 31s   remaining: 1m 38s
481:    learn: 0.2175414        total: 1m 31s   remaining: 1m 38s
482:    learn: 0.2174459        total: 1m 31s   remaining: 1m 38s
483:    learn: 0.2173406        total: 1m 32s   remaining: 1m 38s
484:    learn: 0.2172422        total: 1m 32s   remaining: 1m 38s
485:    learn: 0.2171533        total: 1m 32s   remaining: 1m 37s
486:    learn: 0.2170506        total: 1m 32s   remaining: 1m 37s
487:    learn: 0.2169608        total: 1m 32s   remaining: 1m 37s
488:    learn: 0.2168645        total: 1m 33s   remaining: 1m 37s
489:    learn: 0.2167667        total: 1m 33s   remaining: 1m 37s
490:    learn: 0.2166698        total: 1m 33s   remaining: 1m 36s
491:    learn: 0.2165845        total: 1m 33s   remaining: 1m 36s
492:    learn: 0.2164965        total: 1m 33s   remaining: 1m 36s
493:    learn: 0.2164070        total: 1m 34s   remaining: 1m 36s
494:    learn: 0.2163174        total: 1m 34s   remaining: 1m 36s
495:    learn: 0.2162252        total: 1m 34s   remaining: 1m 36s
496:    learn: 0.2161393        total: 1m 34s   remaining: 1m 35s
497:    learn: 0.2160501        total: 1m 34s   remaining: 1m 35s
498:    learn: 0.2159613        total: 1m 35s   remaining: 1m 35s
499:    learn: 0.2158647        total: 1m 35s   remaining: 1m 35s
500:    learn: 0.2157890        total: 1m 35s   remaining: 1m 35s
501:    learn: 0.2157046        total: 1m 35s   remaining: 1m 34s
502:    learn: 0.2155982        total: 1m 35s   remaining: 1m 34s
503:    learn: 0.2155128        total: 1m 36s   remaining: 1m 34s
504:    learn: 0.2154280        total: 1m 36s   remaining: 1m 34s
505:    learn: 0.2153467        total: 1m 36s   remaining: 1m 34s
506:    learn: 0.2152692        total: 1m 36s   remaining: 1m 33s
507:    learn: 0.2151864        total: 1m 36s   remaining: 1m 33s
508:    learn: 0.2151000        total: 1m 36s   remaining: 1m 33s
509:    learn: 0.2150131        total: 1m 37s   remaining: 1m 33s
510:    learn: 0.2149180        total: 1m 37s   remaining: 1m 33s
511:    learn: 0.2148215        total: 1m 37s   remaining: 1m 32s
512:    learn: 0.2147362        total: 1m 37s   remaining: 1m 32s
513:    learn: 0.2146375        total: 1m 37s   remaining: 1m 32s
514:    learn: 0.2145384        total: 1m 38s   remaining: 1m 32s
515:    learn: 0.2144477        total: 1m 38s   remaining: 1m 32s
516:    learn: 0.2143645        total: 1m 38s   remaining: 1m 31s
517:    learn: 0.2142826        total: 1m 38s   remaining: 1m 31s
518:    learn: 0.2142009        total: 1m 38s   remaining: 1m 31s
519:    learn: 0.2141247        total: 1m 38s   remaining: 1m 31s
520:    learn: 0.2140336        total: 1m 39s   remaining: 1m 31s
521:    learn: 0.2139436        total: 1m 39s   remaining: 1m 30s
522:    learn: 0.2138520        total: 1m 39s   remaining: 1m 30s
523:    learn: 0.2137602        total: 1m 39s   remaining: 1m 30s
524:    learn: 0.2136817        total: 1m 39s   remaining: 1m 30s
525:    learn: 0.2135898        total: 1m 40s   remaining: 1m 30s
526:    learn: 0.2135077        total: 1m 40s   remaining: 1m 30s
527:    learn: 0.2134240        total: 1m 40s   remaining: 1m 29s
528:    learn: 0.2133482        total: 1m 40s   remaining: 1m 29s
529:    learn: 0.2132608        total: 1m 40s   remaining: 1m 29s
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530:    learn: 0.2131662        total: 1m 41s   remaining: 1m 29s
531:    learn: 0.2130898        total: 1m 41s   remaining: 1m 29s
532:    learn: 0.2129980        total: 1m 41s   remaining: 1m 28s
533:    learn: 0.2129182        total: 1m 41s   remaining: 1m 28s
534:    learn: 0.2128258        total: 1m 41s   remaining: 1m 28s
535:    learn: 0.2127441        total: 1m 42s   remaining: 1m 28s
536:    learn: 0.2126637        total: 1m 42s   remaining: 1m 28s
537:    learn: 0.2125782        total: 1m 42s   remaining: 1m 28s
538:    learn: 0.2124934        total: 1m 42s   remaining: 1m 27s
539:    learn: 0.2124093        total: 1m 43s   remaining: 1m 27s
540:    learn: 0.2123309        total: 1m 43s   remaining: 1m 27s
541:    learn: 0.2122440        total: 1m 43s   remaining: 1m 27s
542:    learn: 0.2121697        total: 1m 43s   remaining: 1m 27s
543:    learn: 0.2120846        total: 1m 43s   remaining: 1m 27s
544:    learn: 0.2119916        total: 1m 44s   remaining: 1m 26s
545:    learn: 0.2119074        total: 1m 44s   remaining: 1m 26s
546:    learn: 0.2118177        total: 1m 44s   remaining: 1m 26s
547:    learn: 0.2117328        total: 1m 44s   remaining: 1m 26s
548:    learn: 0.2116502        total: 1m 44s   remaining: 1m 26s
549:    learn: 0.2115776        total: 1m 44s   remaining: 1m 25s
550:    learn: 0.2115057        total: 1m 45s   remaining: 1m 25s
551:    learn: 0.2114226        total: 1m 45s   remaining: 1m 25s
552:    learn: 0.2113424        total: 1m 45s   remaining: 1m 25s
553:    learn: 0.2112676        total: 1m 45s   remaining: 1m 25s
554:    learn: 0.2111788        total: 1m 45s   remaining: 1m 24s
555:    learn: 0.2110876        total: 1m 46s   remaining: 1m 24s
556:    learn: 0.2109940        total: 1m 46s   remaining: 1m 24s
557:    learn: 0.2109140        total: 1m 46s   remaining: 1m 24s
558:    learn: 0.2108263        total: 1m 46s   remaining: 1m 24s
559:    learn: 0.2107407        total: 1m 46s   remaining: 1m 23s
560:    learn: 0.2106549        total: 1m 47s   remaining: 1m 23s
561:    learn: 0.2105733        total: 1m 47s   remaining: 1m 23s
562:    learn: 0.2104858        total: 1m 47s   remaining: 1m 23s
563:    learn: 0.2104117        total: 1m 47s   remaining: 1m 23s
564:    learn: 0.2103297        total: 1m 47s   remaining: 1m 23s
565:    learn: 0.2102557        total: 1m 48s   remaining: 1m 22s
566:    learn: 0.2101781        total: 1m 48s   remaining: 1m 22s
567:    learn: 0.2101063        total: 1m 48s   remaining: 1m 22s
568:    learn: 0.2100344        total: 1m 48s   remaining: 1m 22s
569:    learn: 0.2099703        total: 1m 48s   remaining: 1m 22s
570:    learn: 0.2098838        total: 1m 48s   remaining: 1m 21s
571:    learn: 0.2098013        total: 1m 49s   remaining: 1m 21s
572:    learn: 0.2097304        total: 1m 49s   remaining: 1m 21s
573:    learn: 0.2096385        total: 1m 49s   remaining: 1m 21s
574:    learn: 0.2095573        total: 1m 49s   remaining: 1m 21s
575:    learn: 0.2094702        total: 1m 49s   remaining: 1m 20s
576:    learn: 0.2093951        total: 1m 50s   remaining: 1m 20s
577:    learn: 0.2093209        total: 1m 50s   remaining: 1m 20s
578:    learn: 0.2092427        total: 1m 50s   remaining: 1m 20s
579:    learn: 0.2091662        total: 1m 50s   remaining: 1m 20s
580:    learn: 0.2090903        total: 1m 50s   remaining: 1m 19s
581:    learn: 0.2090103        total: 1m 51s   remaining: 1m 19s
582:    learn: 0.2089316        total: 1m 51s   remaining: 1m 19s
583:    learn: 0.2088430        total: 1m 51s   remaining: 1m 19s
584:    learn: 0.2087552        total: 1m 51s   remaining: 1m 19s
585:    learn: 0.2086754        total: 1m 51s   remaining: 1m 19s
586:    learn: 0.2085851        total: 1m 52s   remaining: 1m 18s
587:    learn: 0.2085070        total: 1m 52s   remaining: 1m 18s
588:    learn: 0.2084288        total: 1m 52s   remaining: 1m 18s
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589:    learn: 0.2083466        total: 1m 52s   remaining: 1m 18s
590:    learn: 0.2082711        total: 1m 52s   remaining: 1m 18s
591:    learn: 0.2081867        total: 1m 53s   remaining: 1m 17s
592:    learn: 0.2081246        total: 1m 53s   remaining: 1m 17s
593:    learn: 0.2080490        total: 1m 53s   remaining: 1m 17s
594:    learn: 0.2079681        total: 1m 53s   remaining: 1m 17s
595:    learn: 0.2078857        total: 1m 53s   remaining: 1m 17s
596:    learn: 0.2078111        total: 1m 54s   remaining: 1m 16s
597:    learn: 0.2077325        total: 1m 54s   remaining: 1m 16s
598:    learn: 0.2076408        total: 1m 54s   remaining: 1m 16s
599:    learn: 0.2075711        total: 1m 54s   remaining: 1m 16s
600:    learn: 0.2074962        total: 1m 54s   remaining: 1m 16s
601:    learn: 0.2074286        total: 1m 55s   remaining: 1m 16s
602:    learn: 0.2073522        total: 1m 55s   remaining: 1m 15s
603:    learn: 0.2072879        total: 1m 55s   remaining: 1m 15s
604:    learn: 0.2072099        total: 1m 55s   remaining: 1m 15s
605:    learn: 0.2071388        total: 1m 55s   remaining: 1m 15s
606:    learn: 0.2070603        total: 1m 55s   remaining: 1m 15s
607:    learn: 0.2069709        total: 1m 56s   remaining: 1m 14s
608:    learn: 0.2068913        total: 1m 56s   remaining: 1m 14s
609:    learn: 0.2068032        total: 1m 56s   remaining: 1m 14s
610:    learn: 0.2067297        total: 1m 56s   remaining: 1m 14s
611:    learn: 0.2066557        total: 1m 56s   remaining: 1m 14s
612:    learn: 0.2065823        total: 1m 57s   remaining: 1m 13s
613:    learn: 0.2065030        total: 1m 57s   remaining: 1m 13s
614:    learn: 0.2064214        total: 1m 57s   remaining: 1m 13s
615:    learn: 0.2063548        total: 1m 57s   remaining: 1m 13s
616:    learn: 0.2062837        total: 1m 57s   remaining: 1m 13s
617:    learn: 0.2062121        total: 1m 58s   remaining: 1m 13s
618:    learn: 0.2061288        total: 1m 58s   remaining: 1m 12s
619:    learn: 0.2060550        total: 1m 58s   remaining: 1m 12s
620:    learn: 0.2059822        total: 1m 58s   remaining: 1m 12s
621:    learn: 0.2059108        total: 1m 59s   remaining: 1m 12s
622:    learn: 0.2058366        total: 1m 59s   remaining: 1m 12s
623:    learn: 0.2057702        total: 1m 59s   remaining: 1m 12s
624:    learn: 0.2056911        total: 1m 59s   remaining: 1m 11s
625:    learn: 0.2056321        total: 1m 59s   remaining: 1m 11s
626:    learn: 0.2055616        total: 2m       remaining: 1m 11s
627:    learn: 0.2054893        total: 2m       remaining: 1m 11s
628:    learn: 0.2054101        total: 2m       remaining: 1m 11s
629:    learn: 0.2053391        total: 2m       remaining: 1m 10s
630:    learn: 0.2052698        total: 2m       remaining: 1m 10s
631:    learn: 0.2051930        total: 2m 1s    remaining: 1m 10s
632:    learn: 0.2051255        total: 2m 1s    remaining: 1m 10s
633:    learn: 0.2050611        total: 2m 1s    remaining: 1m 10s
634:    learn: 0.2049891        total: 2m 1s    remaining: 1m 9s
635:    learn: 0.2049226        total: 2m 1s    remaining: 1m 9s
636:    learn: 0.2048513        total: 2m 1s    remaining: 1m 9s
637:    learn: 0.2047870        total: 2m 2s    remaining: 1m 9s
638:    learn: 0.2047090        total: 2m 2s    remaining: 1m 9s
639:    learn: 0.2046388        total: 2m 2s    remaining: 1m 8s
640:    learn: 0.2045620        total: 2m 2s    remaining: 1m 8s
641:    learn: 0.2044821        total: 2m 2s    remaining: 1m 8s
642:    learn: 0.2044157        total: 2m 3s    remaining: 1m 8s
643:    learn: 0.2043453        total: 2m 3s    remaining: 1m 8s
644:    learn: 0.2042663        total: 2m 3s    remaining: 1m 8s
645:    learn: 0.2041970        total: 2m 3s    remaining: 1m 7s
646:    learn: 0.2041264        total: 2m 3s    remaining: 1m 7s
647:    learn: 0.2040458        total: 2m 4s    remaining: 1m 7s
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648:    learn: 0.2039788        total: 2m 4s    remaining: 1m 7s
649:    learn: 0.2039095        total: 2m 4s    remaining: 1m 7s
650:    learn: 0.2038277        total: 2m 4s    remaining: 1m 6s
651:    learn: 0.2037656        total: 2m 4s    remaining: 1m 6s
652:    learn: 0.2036994        total: 2m 5s    remaining: 1m 6s
653:    learn: 0.2036311        total: 2m 5s    remaining: 1m 6s
654:    learn: 0.2035579        total: 2m 5s    remaining: 1m 6s
655:    learn: 0.2034916        total: 2m 5s    remaining: 1m 5s
656:    learn: 0.2034195        total: 2m 5s    remaining: 1m 5s
657:    learn: 0.2033529        total: 2m 5s    remaining: 1m 5s
658:    learn: 0.2032859        total: 2m 6s    remaining: 1m 5s
659:    learn: 0.2032076        total: 2m 6s    remaining: 1m 5s
660:    learn: 0.2031430        total: 2m 6s    remaining: 1m 4s
661:    learn: 0.2030714        total: 2m 6s    remaining: 1m 4s
662:    learn: 0.2030055        total: 2m 6s    remaining: 1m 4s
663:    learn: 0.2029274        total: 2m 7s    remaining: 1m 4s
664:    learn: 0.2028538        total: 2m 7s    remaining: 1m 4s
665:    learn: 0.2027886        total: 2m 7s    remaining: 1m 3s
666:    learn: 0.2027194        total: 2m 7s    remaining: 1m 3s
667:    learn: 0.2026586        total: 2m 7s    remaining: 1m 3s
668:    learn: 0.2025834        total: 2m 8s    remaining: 1m 3s
669:    learn: 0.2025106        total: 2m 8s    remaining: 1m 3s
670:    learn: 0.2024473        total: 2m 8s    remaining: 1m 2s
671:    learn: 0.2023803        total: 2m 8s    remaining: 1m 2s
672:    learn: 0.2023112        total: 2m 8s    remaining: 1m 2s
673:    learn: 0.2022412        total: 2m 9s    remaining: 1m 2s
674:    learn: 0.2021839        total: 2m 9s    remaining: 1m 2s
675:    learn: 0.2021136        total: 2m 9s    remaining: 1m 1s
676:    learn: 0.2020486        total: 2m 9s    remaining: 1m 1s
677:    learn: 0.2019763        total: 2m 9s    remaining: 1m 1s
678:    learn: 0.2018998        total: 2m 9s    remaining: 1m 1s
679:    learn: 0.2018325        total: 2m 10s   remaining: 1m 1s
680:    learn: 0.2017697        total: 2m 10s   remaining: 1m 1s
681:    learn: 0.2017020        total: 2m 10s   remaining: 1m
682:    learn: 0.2016347        total: 2m 10s   remaining: 1m
683:    learn: 0.2015702        total: 2m 10s   remaining: 1m
684:    learn: 0.2014872        total: 2m 11s   remaining: 1m
685:    learn: 0.2014231        total: 2m 11s   remaining: 1m
686:    learn: 0.2013595        total: 2m 11s   remaining: 59.9s
687:    learn: 0.2012822        total: 2m 11s   remaining: 59.7s
688:    learn: 0.2012245        total: 2m 11s   remaining: 59.5s
689:    learn: 0.2011553        total: 2m 12s   remaining: 59.3s
690:    learn: 0.2010759        total: 2m 12s   remaining: 59.1s
691:    learn: 0.2010135        total: 2m 12s   remaining: 58.9s
692:    learn: 0.2009571        total: 2m 12s   remaining: 58.8s
693:    learn: 0.2008876        total: 2m 12s   remaining: 58.6s
694:    learn: 0.2008176        total: 2m 13s   remaining: 58.4s
695:    learn: 0.2007396        total: 2m 13s   remaining: 58.2s
696:    learn: 0.2006794        total: 2m 13s   remaining: 58s
697:    learn: 0.2006019        total: 2m 13s   remaining: 57.8s
698:    learn: 0.2005302        total: 2m 13s   remaining: 57.6s
699:    learn: 0.2004585        total: 2m 14s   remaining: 57.4s
700:    learn: 0.2003913        total: 2m 14s   remaining: 57.3s
701:    learn: 0.2003096        total: 2m 14s   remaining: 57.1s
702:    learn: 0.2002424        total: 2m 14s   remaining: 56.9s
703:    learn: 0.2001579        total: 2m 15s   remaining: 56.8s
704:    learn: 0.2000872        total: 2m 15s   remaining: 56.6s
705:    learn: 0.2000241        total: 2m 15s   remaining: 56.4s
706:    learn: 0.1999515        total: 2m 15s   remaining: 56.2s
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707:    learn: 0.1998767        total: 2m 15s   remaining: 56s
708:    learn: 0.1998033        total: 2m 16s   remaining: 55.8s
709:    learn: 0.1997471        total: 2m 16s   remaining: 55.6s
710:    learn: 0.1996898        total: 2m 16s   remaining: 55.4s
711:    learn: 0.1996236        total: 2m 16s   remaining: 55.3s
712:    learn: 0.1995508        total: 2m 16s   remaining: 55.1s
713:    learn: 0.1994907        total: 2m 16s   remaining: 54.9s
714:    learn: 0.1994257        total: 2m 17s   remaining: 54.7s
715:    learn: 0.1993601        total: 2m 17s   remaining: 54.5s
716:    learn: 0.1992879        total: 2m 17s   remaining: 54.3s
717:    learn: 0.1992236        total: 2m 17s   remaining: 54.1s
718:    learn: 0.1991677        total: 2m 17s   remaining: 53.9s
719:    learn: 0.1991027        total: 2m 18s   remaining: 53.7s
720:    learn: 0.1990343        total: 2m 18s   remaining: 53.5s
721:    learn: 0.1989634        total: 2m 18s   remaining: 53.3s
722:    learn: 0.1988929        total: 2m 18s   remaining: 53.1s
723:    learn: 0.1988293        total: 2m 18s   remaining: 52.9s
724:    learn: 0.1987555        total: 2m 19s   remaining: 52.7s
725:    learn: 0.1986965        total: 2m 19s   remaining: 52.5s
726:    learn: 0.1986354        total: 2m 19s   remaining: 52.4s
727:    learn: 0.1985694        total: 2m 19s   remaining: 52.2s
728:    learn: 0.1985031        total: 2m 19s   remaining: 52s
729:    learn: 0.1984306        total: 2m 20s   remaining: 51.8s
730:    learn: 0.1983713        total: 2m 20s   remaining: 51.6s
731:    learn: 0.1983044        total: 2m 20s   remaining: 51.4s
732:    learn: 0.1982373        total: 2m 20s   remaining: 51.2s
733:    learn: 0.1981711        total: 2m 20s   remaining: 51s
734:    learn: 0.1981121        total: 2m 20s   remaining: 50.8s
735:    learn: 0.1980527        total: 2m 21s   remaining: 50.6s
736:    learn: 0.1979794        total: 2m 21s   remaining: 50.4s
737:    learn: 0.1979122        total: 2m 21s   remaining: 50.3s
738:    learn: 0.1978497        total: 2m 21s   remaining: 50.1s
739:    learn: 0.1977836        total: 2m 21s   remaining: 49.9s
740:    learn: 0.1977212        total: 2m 22s   remaining: 49.7s
741:    learn: 0.1976552        total: 2m 22s   remaining: 49.5s
742:    learn: 0.1975816        total: 2m 22s   remaining: 49.3s
743:    learn: 0.1975294        total: 2m 22s   remaining: 49.1s
744:    learn: 0.1974589        total: 2m 22s   remaining: 48.9s
745:    learn: 0.1973940        total: 2m 23s   remaining: 48.7s
746:    learn: 0.1973381        total: 2m 23s   remaining: 48.5s
747:    learn: 0.1972675        total: 2m 23s   remaining: 48.4s
748:    learn: 0.1971938        total: 2m 23s   remaining: 48.2s
749:    learn: 0.1971278        total: 2m 23s   remaining: 48s
750:    learn: 0.1970619        total: 2m 24s   remaining: 47.8s
751:    learn: 0.1969962        total: 2m 24s   remaining: 47.6s
752:    learn: 0.1969360        total: 2m 24s   remaining: 47.4s
753:    learn: 0.1968660        total: 2m 24s   remaining: 47.2s
754:    learn: 0.1968026        total: 2m 24s   remaining: 47s
755:    learn: 0.1967385        total: 2m 25s   remaining: 46.9s
756:    learn: 0.1966807        total: 2m 25s   remaining: 46.7s
757:    learn: 0.1966165        total: 2m 25s   remaining: 46.5s
758:    learn: 0.1965457        total: 2m 25s   remaining: 46.3s
759:    learn: 0.1964792        total: 2m 25s   remaining: 46.1s
760:    learn: 0.1964043        total: 2m 26s   remaining: 45.9s
761:    learn: 0.1963277        total: 2m 26s   remaining: 45.7s
762:    learn: 0.1962662        total: 2m 26s   remaining: 45.5s
763:    learn: 0.1962081        total: 2m 26s   remaining: 45.3s
764:    learn: 0.1961483        total: 2m 26s   remaining: 45.1s
765:    learn: 0.1960921        total: 2m 27s   remaining: 44.9s
```

```
766:    learn: 0.1960280        total: 2m 27s   remaining: 44.8s
767:    learn: 0.1959640        total: 2m 27s   remaining: 44.6s
768:    learn: 0.1958881        total: 2m 27s   remaining: 44.4s
769:    learn: 0.1958235        total: 2m 27s   remaining: 44.2s
770:    learn: 0.1957674        total: 2m 28s   remaining: 44s
771:    learn: 0.1957213        total: 2m 28s   remaining: 43.8s
772:    learn: 0.1956455        total: 2m 28s   remaining: 43.6s
773:    learn: 0.1955890        total: 2m 28s   remaining: 43.4s
774:    learn: 0.1955220        total: 2m 28s   remaining: 43.2s
775:    learn: 0.1954535        total: 2m 29s   remaining: 43s
776:    learn: 0.1953971        total: 2m 29s   remaining: 42.9s
777:    learn: 0.1953409        total: 2m 29s   remaining: 42.7s
778:    learn: 0.1952828        total: 2m 29s   remaining: 42.5s
779:    learn: 0.1952195        total: 2m 29s   remaining: 42.3s
780:    learn: 0.1951557        total: 2m 30s   remaining: 42.1s
781:    learn: 0.1950888        total: 2m 30s   remaining: 41.9s
782:    learn: 0.1950227        total: 2m 30s   remaining: 41.8s
783:    learn: 0.1949602        total: 2m 30s   remaining: 41.6s
784:    learn: 0.1949032        total: 2m 31s   remaining: 41.4s
785:    learn: 0.1948331        total: 2m 31s   remaining: 41.2s
786:    learn: 0.1947745        total: 2m 31s   remaining: 41s
787:    learn: 0.1947147        total: 2m 31s   remaining: 40.8s
788:    learn: 0.1946460        total: 2m 31s   remaining: 40.6s
789:    learn: 0.1945868        total: 2m 32s   remaining: 40.4s
790:    learn: 0.1945261        total: 2m 32s   remaining: 40.2s
791:    learn: 0.1944723        total: 2m 32s   remaining: 40s
792:    learn: 0.1944041        total: 2m 32s   remaining: 39.8s
793:    learn: 0.1943513        total: 2m 32s   remaining: 39.7s
794:    learn: 0.1942919        total: 2m 33s   remaining: 39.5s
795:    learn: 0.1942251        total: 2m 33s   remaining: 39.3s
796:    learn: 0.1941654        total: 2m 33s   remaining: 39.1s
797:    learn: 0.1941107        total: 2m 33s   remaining: 38.9s
798:    learn: 0.1940574        total: 2m 33s   remaining: 38.7s
799:    learn: 0.1939933        total: 2m 34s   remaining: 38.5s
800:    learn: 0.1939313        total: 2m 34s   remaining: 38.4s
801:    learn: 0.1938647        total: 2m 34s   remaining: 38.2s
802:    learn: 0.1937968        total: 2m 34s   remaining: 38s
803:    learn: 0.1937371        total: 2m 34s   remaining: 37.8s
804:    learn: 0.1936839        total: 2m 35s   remaining: 37.6s
805:    learn: 0.1936224        total: 2m 35s   remaining: 37.4s
806:    learn: 0.1935655        total: 2m 35s   remaining: 37.2s
807:    learn: 0.1935050        total: 2m 35s   remaining: 37s
808:    learn: 0.1934451        total: 2m 35s   remaining: 36.8s
809:    learn: 0.1933876        total: 2m 36s   remaining: 36.6s
810:    learn: 0.1933409        total: 2m 36s   remaining: 36.4s
811:    learn: 0.1932829        total: 2m 36s   remaining: 36.2s
812:    learn: 0.1932198        total: 2m 36s   remaining: 36s
813:    learn: 0.1931601        total: 2m 36s   remaining: 35.9s
814:    learn: 0.1931091        total: 2m 37s   remaining: 35.7s
815:    learn: 0.1930520        total: 2m 37s   remaining: 35.5s
816:    learn: 0.1929965        total: 2m 37s   remaining: 35.3s
817:    learn: 0.1929415        total: 2m 37s   remaining: 35.1s
818:    learn: 0.1928691        total: 2m 37s   remaining: 34.9s
819:    learn: 0.1928074        total: 2m 38s   remaining: 34.7s
820:    learn: 0.1927565        total: 2m 38s   remaining: 34.5s
821:    learn: 0.1926954        total: 2m 38s   remaining: 34.3s
822:    learn: 0.1926297        total: 2m 38s   remaining: 34.1s
823:    learn: 0.1925649        total: 2m 38s   remaining: 33.9s
824:    learn: 0.1925060        total: 2m 39s   remaining: 33.7s
```

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825:    learn: 0.1924463        total: 2m 39s   remaining: 33.5s
826:    learn: 0.1923843        total: 2m 39s   remaining: 33.4s
827:    learn: 0.1923215        total: 2m 39s   remaining: 33.2s
828:    learn: 0.1922634        total: 2m 39s   remaining: 33s
829:    learn: 0.1922030        total: 2m 40s   remaining: 32.8s
830:    learn: 0.1921474        total: 2m 40s   remaining: 32.6s
831:    learn: 0.1920796        total: 2m 40s   remaining: 32.4s
832:    learn: 0.1920213        total: 2m 40s   remaining: 32.2s
833:    learn: 0.1919628        total: 2m 40s   remaining: 32s
834:    learn: 0.1919105        total: 2m 41s   remaining: 31.8s
835:    learn: 0.1918583        total: 2m 41s   remaining: 31.6s
836:    learn: 0.1917949        total: 2m 41s   remaining: 31.4s
837:    learn: 0.1917409        total: 2m 41s   remaining: 31.2s
838:    learn: 0.1916807        total: 2m 41s   remaining: 31.1s
839:    learn: 0.1916230        total: 2m 42s   remaining: 30.9s
840:    learn: 0.1915703        total: 2m 42s   remaining: 30.7s
841:    learn: 0.1915157        total: 2m 42s   remaining: 30.5s
842:    learn: 0.1914548        total: 2m 42s   remaining: 30.3s
843:    learn: 0.1913966        total: 2m 42s   remaining: 30.1s
844:    learn: 0.1913309        total: 2m 43s   remaining: 29.9s
845:    learn: 0.1912659        total: 2m 43s   remaining: 29.7s
846:    learn: 0.1912018        total: 2m 43s   remaining: 29.5s
847:    learn: 0.1911490        total: 2m 43s   remaining: 29.3s
848:    learn: 0.1910887        total: 2m 43s   remaining: 29.1s
849:    learn: 0.1910182        total: 2m 44s   remaining: 28.9s
850:    learn: 0.1909529        total: 2m 44s   remaining: 28.8s
851:    learn: 0.1909018        total: 2m 44s   remaining: 28.6s
852:    learn: 0.1908469        total: 2m 44s   remaining: 28.4s
853:    learn: 0.1907869        total: 2m 44s   remaining: 28.2s
854:    learn: 0.1907339        total: 2m 45s   remaining: 28s
855:    learn: 0.1906759        total: 2m 45s   remaining: 27.8s
856:    learn: 0.1906158        total: 2m 45s   remaining: 27.6s
857:    learn: 0.1905567        total: 2m 45s   remaining: 27.4s
858:    learn: 0.1905055        total: 2m 45s   remaining: 27.2s
859:    learn: 0.1904574        total: 2m 46s   remaining: 27s
860:    learn: 0.1903927        total: 2m 46s   remaining: 26.8s
861:    learn: 0.1903223        total: 2m 46s   remaining: 26.7s
862:    learn: 0.1902566        total: 2m 46s   remaining: 26.5s
863:    learn: 0.1901868        total: 2m 47s   remaining: 26.3s
864:    learn: 0.1901302        total: 2m 47s   remaining: 26.1s
865:    learn: 0.1900672        total: 2m 47s   remaining: 25.9s
866:    learn: 0.1900070        total: 2m 47s   remaining: 25.7s
867:    learn: 0.1899390        total: 2m 47s   remaining: 25.5s
868:    learn: 0.1898718        total: 2m 48s   remaining: 25.3s
869:    learn: 0.1898069        total: 2m 48s   remaining: 25.1s
870:    learn: 0.1897494        total: 2m 48s   remaining: 24.9s
871:    learn: 0.1896884        total: 2m 48s   remaining: 24.8s
872:    learn: 0.1896334        total: 2m 48s   remaining: 24.6s
873:    learn: 0.1895765        total: 2m 49s   remaining: 24.4s
874:    learn: 0.1895175        total: 2m 49s   remaining: 24.2s
875:    learn: 0.1894641        total: 2m 49s   remaining: 24s
876:    learn: 0.1894130        total: 2m 49s   remaining: 23.8s
877:    learn: 0.1893559        total: 2m 49s   remaining: 23.6s
878:    learn: 0.1892945        total: 2m 50s   remaining: 23.4s
879:    learn: 0.1892356        total: 2m 50s   remaining: 23.2s
880:    learn: 0.1891798        total: 2m 50s   remaining: 23s
881:    learn: 0.1891229        total: 2m 50s   remaining: 22.8s
882:    learn: 0.1890659        total: 2m 50s   remaining: 22.6s
883:    learn: 0.1890145        total: 2m 50s   remaining: 22.4s
```

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884:    learn: 0.1889518        total: 2m 51s   remaining: 22.2s
885:    learn: 0.1888984        total: 2m 51s   remaining: 22.1s
886:    learn: 0.1888421        total: 2m 51s   remaining: 21.9s
887:    learn: 0.1887865        total: 2m 51s   remaining: 21.7s
888:    learn: 0.1887423        total: 2m 52s   remaining: 21.5s
889:    learn: 0.1886870        total: 2m 52s   remaining: 21.3s
890:    learn: 0.1886253        total: 2m 52s   remaining: 21.1s
891:    learn: 0.1885714        total: 2m 52s   remaining: 20.9s
892:    learn: 0.1885246        total: 2m 52s   remaining: 20.7s
893:    learn: 0.1884738        total: 2m 53s   remaining: 20.5s
894:    learn: 0.1884215        total: 2m 53s   remaining: 20.3s
895:    learn: 0.1883700        total: 2m 53s   remaining: 20.1s
896:    learn: 0.1883166        total: 2m 53s   remaining: 19.9s
897:    learn: 0.1882594        total: 2m 53s   remaining: 19.7s
898:    learn: 0.1882000        total: 2m 54s   remaining: 19.5s
899:    learn: 0.1881549        total: 2m 54s   remaining: 19.4s
900:    learn: 0.1881010        total: 2m 54s   remaining: 19.2s
901:    learn: 0.1880383        total: 2m 54s   remaining: 19s
902:    learn: 0.1879874        total: 2m 54s   remaining: 18.8s
903:    learn: 0.1879363        total: 2m 55s   remaining: 18.6s
904:    learn: 0.1878883        total: 2m 55s   remaining: 18.4s
905:    learn: 0.1878291        total: 2m 55s   remaining: 18.2s
906:    learn: 0.1877685        total: 2m 55s   remaining: 18s
907:    learn: 0.1877236        total: 2m 55s   remaining: 17.8s
908:    learn: 0.1876764        total: 2m 56s   remaining: 17.6s
909:    learn: 0.1876217        total: 2m 56s   remaining: 17.4s
910:    learn: 0.1875786        total: 2m 56s   remaining: 17.2s
911:    learn: 0.1875272        total: 2m 56s   remaining: 17s
912:    learn: 0.1874748        total: 2m 56s   remaining: 16.8s
913:    learn: 0.1874246        total: 2m 56s   remaining: 16.7s
914:    learn: 0.1873637        total: 2m 57s   remaining: 16.5s
915:    learn: 0.1873085        total: 2m 57s   remaining: 16.3s
916:    learn: 0.1872565        total: 2m 57s   remaining: 16.1s
917:    learn: 0.1871987        total: 2m 57s   remaining: 15.9s
918:    learn: 0.1871503        total: 2m 58s   remaining: 15.7s
919:    learn: 0.1870904        total: 2m 58s   remaining: 15.5s
920:    learn: 0.1870340        total: 2m 58s   remaining: 15.3s
921:    learn: 0.1869774        total: 2m 58s   remaining: 15.1s
922:    learn: 0.1869200        total: 2m 58s   remaining: 14.9s
923:    learn: 0.1868544        total: 2m 59s   remaining: 14.7s
924:    learn: 0.1868032        total: 2m 59s   remaining: 14.5s
925:    learn: 0.1867549        total: 2m 59s   remaining: 14.3s
926:    learn: 0.1866969        total: 2m 59s   remaining: 14.2s
927:    learn: 0.1866461        total: 2m 59s   remaining: 14s
928:    learn: 0.1865906        total: 3m       remaining: 13.8s
929:    learn: 0.1865438        total: 3m       remaining: 13.6s
930:    learn: 0.1864872        total: 3m       remaining: 13.4s
931:    learn: 0.1864376        total: 3m       remaining: 13.2s
932:    learn: 0.1863695        total: 3m       remaining: 13s
933:    learn: 0.1863259        total: 3m 1s    remaining: 12.8s
934:    learn: 0.1862789        total: 3m 1s    remaining: 12.6s
935:    learn: 0.1862312        total: 3m 1s    remaining: 12.4s
936:    learn: 0.1861802        total: 3m 1s    remaining: 12.2s
937:    learn: 0.1861328        total: 3m 2s    remaining: 12s
938:    learn: 0.1860779        total: 3m 2s    remaining: 11.8s
939:    learn: 0.1860216        total: 3m 2s    remaining: 11.7s
940:    learn: 0.1859613        total: 3m 2s    remaining: 11.5s
941:    learn: 0.1859004        total: 3m 3s    remaining: 11.3s
942:    learn: 0.1858435        total: 3m 3s    remaining: 11.1s
```

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943:    learn: 0.1857911        total: 3m 3s    remaining: 10.9s
944:    learn: 0.1857489        total: 3m 3s    remaining: 10.7s
945:    learn: 0.1856955        total: 3m 3s    remaining: 10.5s
946:    learn: 0.1856497        total: 3m 4s    remaining: 10.3s
947:    learn: 0.1856000        total: 3m 4s    remaining: 10.1s
948:    learn: 0.1855379        total: 3m 4s    remaining: 9.91s
949:    learn: 0.1854778        total: 3m 4s    remaining: 9.72s
950:    learn: 0.1854278        total: 3m 4s    remaining: 9.53s
951:    learn: 0.1853733        total: 3m 5s    remaining: 9.33s
952:    learn: 0.1853279        total: 3m 5s    remaining: 9.14s
953:    learn: 0.1852753        total: 3m 5s    remaining: 8.94s
954:    learn: 0.1852197        total: 3m 5s    remaining: 8.75s
955:    learn: 0.1851719        total: 3m 5s    remaining: 8.56s
956:    learn: 0.1851181        total: 3m 6s    remaining: 8.37s
957:    learn: 0.1850724        total: 3m 6s    remaining: 8.17s
958:    learn: 0.1850289        total: 3m 6s    remaining: 7.97s
959:    learn: 0.1849886        total: 3m 6s    remaining: 7.78s
960:    learn: 0.1849373        total: 3m 6s    remaining: 7.59s
961:    learn: 0.1848827        total: 3m 7s    remaining: 7.39s
962:    learn: 0.1848268        total: 3m 7s    remaining: 7.2s
963:    learn: 0.1847747        total: 3m 7s    remaining: 7s
964:    learn: 0.1847290        total: 3m 7s    remaining: 6.81s
965:    learn: 0.1846774        total: 3m 7s    remaining: 6.62s
966:    learn: 0.1846242        total: 3m 8s    remaining: 6.42s
967:    learn: 0.1845740        total: 3m 8s    remaining: 6.23s
968:    learn: 0.1845202        total: 3m 8s    remaining: 6.03s
969:    learn: 0.1844720        total: 3m 8s    remaining: 5.84s
970:    learn: 0.1844224        total: 3m 8s    remaining: 5.64s
971:    learn: 0.1843830        total: 3m 9s    remaining: 5.45s
972:    learn: 0.1843237        total: 3m 9s    remaining: 5.25s
973:    learn: 0.1842758        total: 3m 9s    remaining: 5.06s
974:    learn: 0.1842307        total: 3m 9s    remaining: 4.87s
975:    learn: 0.1841836        total: 3m 9s    remaining: 4.67s
976:    learn: 0.1841262        total: 3m 10s   remaining: 4.48s
977:    learn: 0.1840794        total: 3m 10s   remaining: 4.28s
978:    learn: 0.1840161        total: 3m 10s   remaining: 4.09s
979:    learn: 0.1839646        total: 3m 10s   remaining: 3.89s
980:    learn: 0.1839123        total: 3m 10s   remaining: 3.7s
981:    learn: 0.1838598        total: 3m 11s   remaining: 3.5s
982:    learn: 0.1838134        total: 3m 11s   remaining: 3.31s
983:    learn: 0.1837648        total: 3m 11s   remaining: 3.11s
984:    learn: 0.1837165        total: 3m 11s   remaining: 2.92s
985:    learn: 0.1836641        total: 3m 11s   remaining: 2.72s
986:    learn: 0.1836054        total: 3m 12s   remaining: 2.53s
987:    learn: 0.1835469        total: 3m 12s   remaining: 2.33s
988:    learn: 0.1835099        total: 3m 12s   remaining: 2.14s
989:    learn: 0.1834733        total: 3m 12s   remaining: 1.95s
990:    learn: 0.1834198        total: 3m 12s   remaining: 1.75s
991:    learn: 0.1833723        total: 3m 13s   remaining: 1.56s
992:    learn: 0.1833306        total: 3m 13s   remaining: 1.36s
993:    learn: 0.1832713        total: 3m 13s   remaining: 1.17s
994:    learn: 0.1832210        total: 3m 13s   remaining: 973ms
995:    learn: 0.1831731        total: 3m 13s   remaining: 778ms
996:    learn: 0.1831233        total: 3m 14s   remaining: 584ms
997:    learn: 0.1830749        total: 3m 14s   remaining: 389ms
998:    learn: 0.1830263        total: 3m 14s   remaining: 195ms
999:    learn: 0.1829819        total: 3m 14s   remaining: 0us
cat: {'train_dataset': {'Accuracy': 0.9328, 'AUC': 0.9341}, 'validation_
dataset': {'Accuracy': 0.9163, 'AUC': 0.8873}}
```

In [66]:
```
print(f"cat: {cat[0]}")
```

```
cat: RandomizedSearchCV(cv=<generator object _BaseKFold.split at 0x00000
1DA08E9B480>,
          error_score='raise-deprecating',
          estimator=<catboost.core.CatBoostClassifier object at 0x000001
DA08E833C8>,
          fit_params=None, iid='warn', n_iter=5, n_jobs=None,
          param_distributions={'depth': [6, 7, 8, 9, 10], 'iterations':
[250, 100, 500, 1000], 'learning_rate': [0.03, 0.001, 0.01, 0.1, 0.2, 0.
3], 'l2_leaf_reg': [3, 1, 5, 10, 100], 'border_count': [32, 5, 10, 20, 5
0, 100], 'ctr_border_count': [50, 5, 10, 20, 100, 200]},
          pre_dispatch='2*n_jobs', random_state=123, refit=True,
          return_train_score='warn', scoring='roc_auc', verbose=3)
```

In [4]:
```
from prettytable import PrettyTable

x = PrettyTable()
x.field_names = ["sl.no", "model", "Accuracy", "AUC"]

x.add_row(["1", "XGBClassifieR", 0.917, 0.991])
x.add_row(["2", "LGBMClassifier", 0.846, 0.891])
x.add_row(["3","CatBoostClassifier",  0.916, 0.887])

print(x)
```

```
+-------+--------------------+----------+-------+
| sl.no |       model        | Accuracy |  AUC  |
+-------+--------------------+----------+-------+
|   1   |   XGBClassifieR    |  0.917   | 0.991 |
|   2   |   LGBMClassifier   |  0.846   | 0.891 |
|   3   | CatBoostClassifier |  0.916   | 0.887 |
+-------+--------------------+----------+-------+
```