

In [39]: `import numpy as np
import pandas as pd
import seaborn as sns
import itertools
from matplotlib import pyplot
%matplotlib inline
import missingno
import warnings
warnings.filterwarnings('ignore')
from datetime import datetime
from sklearn.model_selection import train_test_split, StratifiedKFold
from sklearn.model_selection import KFold
from sklearn.model_selection import cross_val_score
from sklearn.ensemble import BaggingRegressor
from catboost import CatBoostClassifier, CatBoostRegressor, Pool, cv
import xgboost as xgb
from sklearn.metrics import mean_squared_error
from sklearn.preprocessing import OneHotEncoder, LabelEncoder
from scipy.special import boxcox, inv_boxcox`

In [2]: `train_file = pd.read_csv("/home/jiten/Desktop/ML Submissions/MachineHack/VideoGames/Data/train.csv")
test_file = pd.read_csv("/home/jiten/Desktop/ML Submissions/MachineHack/VideoGames/Data/test.csv")`

In [3]: `len(train_file)`

Out[3]: 3596

In [4]: `len(test_file)`

Out[4]: 1593

In [5]: `train_file.describe()`

	ID	YEAR	CRITICS_POINTS	USER_POINTS	SalesInMillions
count	3506.000000	3506.000000	3506.000000	3506.000000	3506.000000
mean	2282.233600	2008.990302	3.790831	0.455824	2.171021
std	1287.273422	4.304252	3.141781	0.455541	2.495396
min	1.000000	1997.000000	0.568966	0.000341	0.001524
25%	1220.250000	2009.000000	1.738095	0.065966	0.965679
50%	2282.500000	2009.000000	2.766667	0.233333	1.866140
75%	3404.750000	2012.000000	4.621528	0.598333	2.792029
max	4253.000000	2019.000000	23.250000	2.325000	84.226041

In [6]: `train_file.head()`

ID	CONSOLE	YEAR	CATEGORY	PUBLISHER	RATING	CRITICS_POINTS	USER_POINTS	SalesInMillions	
0	2860	ds	2008	role-playing	Nintendo	E	2.833333	0.303704	1.779257
1	731	wii	2012	simulation	Konami Digital Entertainment	E10+	13.200000	1.640000	0.215900
2	495	pc	2019	shooter	Activision	M	4.562500	0.006410	0.534402
3	2641	ps2	2002	sports	Electronic Arts	E	4.181818	0.326923	1.383964
4	811	ps3	2013	action	Activision	M	2.292599	0.032579	0.082671

In [7]: `train_df = train_file.copy()
test_df = test_file.copy()
train_df = train_df.drop_duplicates()
len(train_df)`

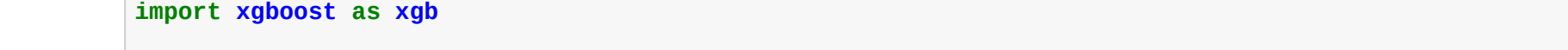
Out[7]: 3596

In [8]: `train_df.head()`

ID	CONSOLE	YEAR	CATEGORY	PUBLISHER	RATING	CRITICS_POINTS	USER_POINTS	SalesInMillions	
0	2860	ds	2008	role-playing	Nintendo	E	2.833333	0.303704	1.779257
1	731	wii	2012	simulation	Konami Digital Entertainment	E10+	13.200000	1.640000	0.215900
2	495	pc	2019	shooter	Activision	M	4.562500	0.006410	0.534402
3	2641	ps2	2002	sports	Electronic Arts	E	4.181818	0.326923	1.383964
4	811	ps3	2013	action	Activision	M	2.292599	0.032579	0.082671

In [9]: `sns.distplot(train_file.CRITICS_POINTS)`

Out[9]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fdb3583abd8>`



In [10]: `test_df.head()`

ID	CONSOLE	YEAR	CATEGORY	PUBLISHER	RATING	CRITICS_POINTS	USER_POINTS	
0	4310	ps2	2008	action	Tecmo Koei	T	3.925971	0.492353
1	4011	psp	2007	strategy	Atlus	E10+	5.538462	0.071795
2	1285	ps2	2004	shooter	Electronic Arts	T	3.034483	0.062044
3	2641	x	2006	action	Electronic Arts	E	2.992211	0.880000
4	188	3ds	2011	racing	Ubisoft	E10+	1.182162	0.183333

In [11]: `min(train_df.ID)`

Out[11]: 1

In [12]: `min(test_df.ID)`

Out[12]: 0

In [13]: `combine = pd.concat([train_df.drop("SalesInMillions",axis = 1),test_df])
missingno.bar(combine)`

Out[13]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fdb3541e750>`



Output Variable

In [14]: `combine.skew()`

Out[14]: `ID -0.825973
YEAR 0.860762
CRITICS_POINTS 2.299211
USER_POINTS 1.687630
dtype: float64`

In [15]: `train_df.skew()`

Out[15]: `ID -0.818779
YEAR 0.117732
CRITICS_POINTS 2.277228
USER_POINTS 1.598871
SalesInMillions 13.477527
dtype: float64`

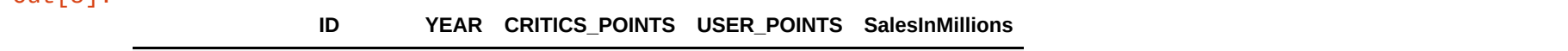
In [16]: `sns.distplot(train_df.SalesInMillions)`

Out[16]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fdb34e283d8>`



In [17]: `def modify_a_col(col,x):
col = boxcox(col, x)
print(col.skew())
sns.distplot(col)`

In [18]: `modify_a_col(train_df["SalesInMillions"],0.27)
train_df["SalesInMillions"] = boxcox(train_df["SalesInMillions"], 0.27)
-0.0089362893164543252`



ID col cannot be ignored since it has repeated values

In [19]: `train_file.columns`

Out[19]: `Index(['ID', 'CONSOLE', 'YEAR', 'CATEGORY', 'PUBLISHER', 'RATING',
'CRITICS_POINTS', 'USER_POINTS', 'SalesInMillions'],
dtype='object')`

In [20]: `if set(train_df.CONSOLE.unique()) == set(test_df.CONSOLE.unique()):
print("All consoles are perfect !")`

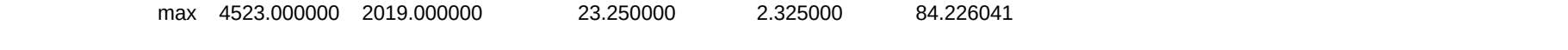
All consoles are perfect !

In [21]: `print(set(train_df.CONSOLE))`

Out[21]: `{'ps3', 'ds', 'x360', 'psv', '3ds', 'x', 'gba', 'pc', 'gc', 'ps', 'xone', 'psp', 'ps4', 'ps2', 'wii',
'ps1', 'wiiu'}`

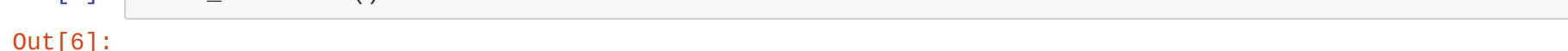
In [22]: `sns.countplot(train_df.CONSOLE)`

Out[22]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fdb3541e750>`



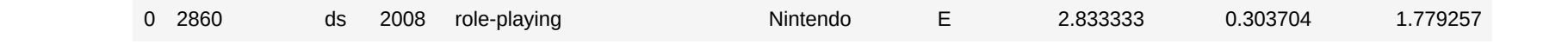
In [23]: `sns.countplot(test_df.CONSOLE)`

Out[23]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fdb3540b5e0>`



In [24]: `sns.countplot(combine.CONSOLE)`

Out[24]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fdb3506f90>`



In [25]: `train_df.CONSOLE.value_counts()`

Out[25]: `ps2 585
x360 448
ps3 438
pc 315
x 266
wii 254
ds 246
psp 188
gc 164
gba 129
ps4 121
3ds 85
xone 84
ps 83
psv 59
wiiu 45
dc 4
Name: CONSOLE, dtype: int64`

In [26]: `test_df.CONSOLE.value_counts()`

Out[26]: `ps2 258
x360 199
ps3 153
pc 146
x 128
wii 113
psp 94
ds 93
ps4 72
gc 67
gba 37
3ds 35
xone 34
ps 31
psv 26
wiiu 19
dc 1
Name: CONSOLE, dtype: int64`

In [27]: `train_df.head()`

ID	CONSOLE	YEAR	CATEGORY	PUBLISHER	RATING	CRITICS_POINTS	USER_POINTS	SalesInMillions	
0	2860	ds	2008	role-playing	Nintendo	E	2.833333	0.303704	0.623434
1	731	wii	2012	simulation	Konami Digital Entertainment	E10+	13.200000	1.640000	-1.257900
2	495	pc	2019	shooter	Activision	M	4.562500	0.006410	-0.576469
3	2641	ps2	2002	sports	Electronic Arts	E	4.181818	0.326923	0.399633
4	811	ps3	2013	action	Activision	M	2.292599	0.032579	-1.814317

In [28]: `x = train_df.YEAR.unique()
print(list(set(x)))`

Out[28]: `[1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019]`

In [29]: `y = test_df.YEAR.unique()
print(list(set(y)))`

Out[29]: `[1998, 1999, 1997, 2008, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019]`

In [30]: `print(train_df.YEAR.unique().sort() == test_df.YEAR.unique().sort())
True`

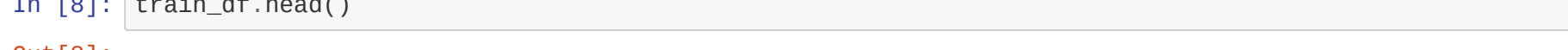
In [31]: `bins = [1998,2004, 2014,5000]
labels = ["age-1","age-2","age-3"]`

<= 2003, 2004 - 2013, >= 2014

In []:

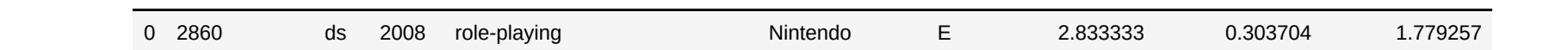
In [32]: `sns.countplot(train_df.YEAR)`

Out[32]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fdb3523ce50>`



In [33]: `sns.countplot(test_df.YEAR)`

Out[33]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fdb351f5050>`



In [34]: `# train_df["YEAR"] = pd.cut(train_df["YEAR"], bins=bins, labels=labels)
test_df["YEAR"] = pd.cut(test_df["YEAR"], bins=bins, labels=labels)
combine["YEAR"] = pd.cut(combine["YEAR"], bins=bins, labels=labels)`

In [35]: `train_df.head()`

ID	CONSOLE	YEAR	CATEGORY	PUBLISHER	RATING	CRITICS_POINTS	USER_POINTS	SalesInMillions	
0	2860	ds	2008	role-playing	Nintendo	E	2.833333	0.303704	0.623434
1	731	wii	2012	simulation	Konami Digital Entertainment	E10+	13.200000	1.640000	-1.257900
2	495	pc	2019	shooter	Activision	M	4.562500	0.006410	-0.576469
3	2641	ps2	2002	sports	Electronic Arts	E	4.181818	0.326923	0.399633
4	811	ps3	2013	action	Activision	M	2.292599	0.032579	-1.814317

In [36]: `print(train_df.CATEGORY.unique().sort() == test_df.CATEGORY.unique().sort())
True`

In [37]: `len(set(train_df.CATEGORY))`

Out[37]: 12

Out[38]: `set(train_df.CATEGORY)`

Out[38]: `{'action',
'adventure',
'fighting',
'misc',
'platform',
'puzzle',
'racing',
'role-playing',
'shooter',
'simulation',
'sports',
'strategy'}`

In [39]: `len(set(train_df.PUBLISHER))`

Out[39]: 284

In [40]: `set(train_df.PUBLISHER)`

Out[40]: `{'1C Company',
'3DO',
'505 Games',
'506 Games',
'5P',
'Acclaim Entertainment',
'Acquire',
'Activision',
'Activision Blizzard',
'Agatsuma Entertainment',
'AgeTec',
'Aksys Games',
'Aq Interactive',
'Aqua Plus',
'Arc System Works',
'Ascaron Entertainment GmbH',
'Asci Interactive',
'Aspyr',
'Atari',
'Atlus',
'Avallone Interactive',
'Bam! Entertainment',
'Banpresto',
'Bethesda Softworks',
'Bighorn Interactive',
'BitComposer Games',
'Black Bean Games',
'Black Label Games',
'Blue Byte',
'Capcom',
'Carve',
'CDV Software Entertainment',
'City Interactive',
'Cloud Imperium Games Corporation',
'Codemasters',
'Compile Heart',
'Crave Entertainment',
'Crimson Cow',
'D3Publisher',
'Deep Silver',
'Destination Software, Inc',
'Destiny',
'Developer Digital',
'Disney Interactive Studios',
'Dreamcatcher Interactive',
'Dtp Entertainment',
'Eidos Games',
'Eidos Interactive',
'Electronic Arts',
'Empire Interactive',
'En Masse Entertainment',
'Encore',
'Enix Corporation',
'Enterbrain',
'Evolved Games',
'Flashpoint Games',
'Focus Home Interactive',
'From Software',
'Funcom',
'Furyu',
'Game Factory',
'Gamecock',
'Gaslamp Games',
'Gathering Of Developers',
'Genki',
'Ghostlight',
'Global Star',
'Gotham Games',
'Graffiti',
'Groove Games',
'Gt Interactive',
'Gungho',
'Harmonix Music Systems',
'Hasbro Interactive',
'Havas Interactive',
'Her Interactive',
'Hip Interactive',
'Home Entertainment Suppliers',
'Hudson Soft',
'Human Entertainment',
'Iceberg Interactive',
'Idea Factory',
'Imagination Entertainment',
'Illusion Softworks',
'Indie Games',
'Infogrames',
'Insonmnia Games',
'Interplay',
'Jaleco',
'Jowood Productions',
'Kalypso Media',
'Kemco',
'Koch Media',
'Konami Digital Entertainment',
'Kool Kizz',
'Lexicon Entertainment',
'Little Orbit',
'Lucasarts',
'Mad Catz',
'Majesco Entertainment',
'Marvelous Entertainment',
'Marvelous Interactive',
'Mastertronic',
'Mastiff',
'Mc2 Entertainment',
'Metro 3D',
'Microchip',
'Microsoft Game Studios',
'Midas Interactive Entertainment',
'Midway Games',
'Milestone S.R.L.',
'Milestone S.R.L.',
'Milestones',
'Monster Games',
'Moss',
'Mtv Games',
'Namco Bandai Games',
'Naturalmotion',
'Natsoft',
'Nintendo',
'Nippon Ichi Software',
'Nobilis',
'Nordic Games',
'Novologic',
'O-Games',
'Ooove Game Studios',
'Pacific Century Cyber Works',
'Paradox Interactive',
'Phantagram',
'Phantasm',
'Play It',
'Playlogic Game Factory',
'Pm Studios',
'Popcap Games',
'Pqube',
'Rage Software',
'Rebellion',
'Rebellion Developments',
'Redoctane',
'Revolution Software',
'Rising Star Games',
'Rondomedia',
'Sammy Corporation',
'Scholastic Inc.',
'Sci',
'Screenlife',
'Sega',
'Slightly Mad Studios',
'Snk',
'Sold Out',
'Sony Computer Entertainment',
'Sony Computer Entertainment America',
'Sony Computer Entertainment Europe',
'Sony Online Entertainment',
'Southpeak Games',
'Spike',
'Square Ea',
'Square Enix',
'Squaresoft',
'Stainless Games',
'Sting',
'Strategy First',
'Success',
'Sunsoft',
'Swini Entertainment',
'System 3',
'System 3 Arcade Software',
'Takara Tomy',
'Take-Two Interactive',
'Talonsort',
'Tek Mediatrice',
'Team17 Software',
'Tecmo Koei',
'That Little Game',
'Thm',
'Thq Nordic',
'Tomy Corporation',
'Topware Interactive',
'Touchstone',
'Trion Worlds',
'Tripwire Interactive',
'Tru Blu Entertainment',
'Ubisoft',
'Ubisoft Annecy',
'Universal Interactive',
'Unknown',
'Valcon Games',
'Valve',
'Valve Software',
'Virgin Interactive',
'Visco',
'Visendi Games',
'Warner Bros. Interactive Entertainment',
'White Park Bay Software',
'Xicat Interactive',
'Xplosiv',
'Xs Games',
'Xseel Games',
'Yacht Club Games',
'Zoo Digital Publishing',
'Zoo Digital Publishing',
'Zoo Digital Publishing',
'Zushi Games'}`

In [41]: `sns.countplot(train_df.CATEGORY)`

Out[41]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fdb349925e0>`



In [42]: `sns.countplot(test_df.CATEGORY)`

Out[42]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fdb3491b618>`



In [43]: `train_df.head()`

ID	CONSOLE	YEAR	CATEGORY	PUBLISHER	RATING	CRITICS_POINTS	USER_POINTS	SalesInMillions	
0	2860	ds	2008	role-playing	Nintendo	E	2.833333	0.303704	0.623434
1	731	wii	2012	simulation	Konami Digital Entertainment	E10+	13.200000	1.640000	-1.257900
2	495	pc	2019	shooter	Activision	M	4.562500	0.006410	-0.576469
3	2641	ps2	2002	sports	Electronic Arts	E	4.181818	0.326923	0.399633
4	811	ps3	2013	action	Activision	M	2.292599	0.032579	-1.814317

In [44]: `if set(train_df.PUBLISHER.sort_values()) == set(test_df.PUBLISHER.sort_values()):
print(True)`

True

In [45]: `len(set(train_df.PUBLISHER.sort_values()))`

Out[45]: 284

In [46]: `set(train_df.RATING.sort_values())`

Out[46]: `{'E', 'E10+', 'K-A', 'M', 'RP', 'T'}`

In [47]: `set(test_df.RATING.sort_values())`

Out[47]: `{'AO', 'E', 'E10+', 'M', 'T'}`

Removing rows with "K-A" and "RP"

In [48]: `train_df[train_df.RATING == "K-A"]`

Out[48]:

ID	CONSOLE	YEAR	CATEGORY	PUBLISHER	RATING	CRITICS_POINTS	USER_POINTS	SalesInMillions	
286	2771	ps	1998	misc	Sony Computer Entertainment	K-A	6.133333	0.154167	-0.147765

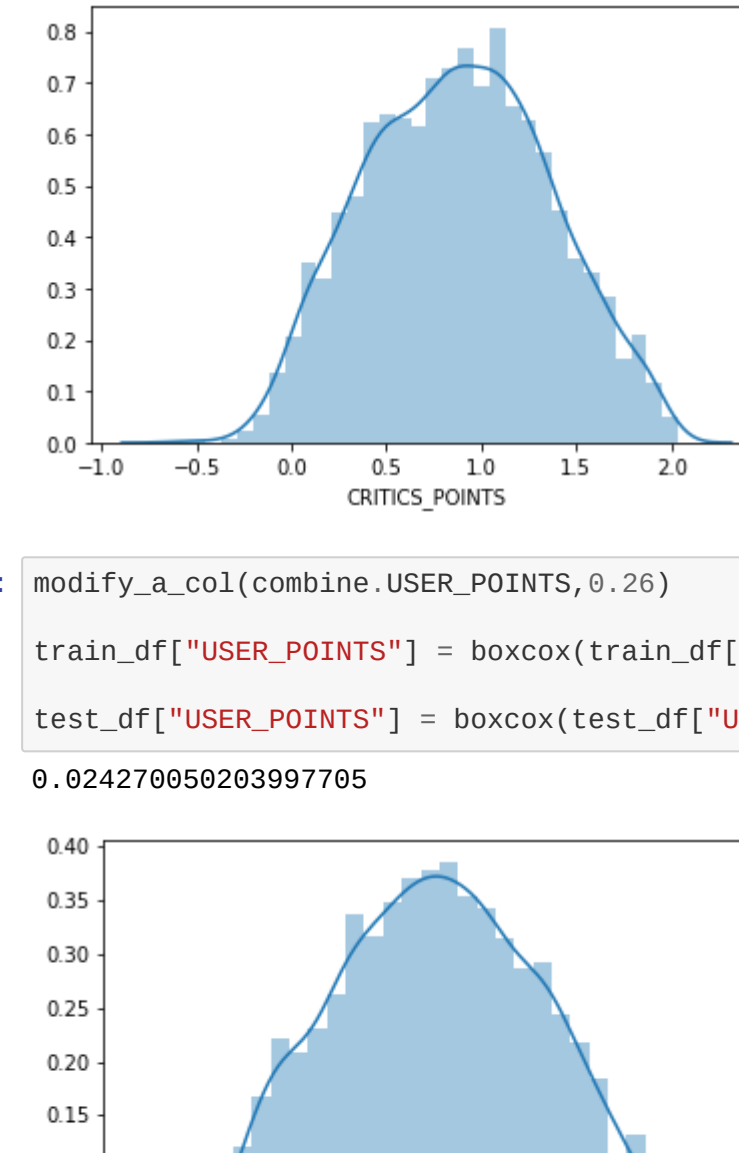
In [49]: `train_df[train_df.RATING == 'RP']`

ID	CONSOLE	YEAR	CATEGORY	PUBLISHER	RATING	CRITICS_POINTS	USER_POINTS	SalesInMillions	
374	3696	pc	2011	strategy	Paradox Interactive	RP	5.25	0.251852	1.121748
748	591	pc	2016	strategy	Gaslamp Games	RP	7.25	0.760000	-0.849052

In [50]: `test_df[test_df.RATING == "AO"]`

In [55]: modify_a_col(combine.CRITICS_POINTS, 0.3)

```
train_df["CRITICS_POINTS"] = boxcox(train_df["CRITICS_POINTS"], -0.3)
test_df["CRITICS_POINTS"] = boxcox(test_df["CRITICS_POINTS"], -0.3)
```



In [56]: modify_a_col(combine.USER_POINTS, 0.26)

```
train_df["USER_POINTS"] = boxcox(train_df["USER_POINTS"], 0.26)
test_df["USER_POINTS"] = boxcox(test_df["USER_POINTS"], 0.26)
```



In [57]: train_df.RATING.unique()

Out[57]: array(['E', 'E10+', 'M', 'T'], dtype=object)

In [58]: rating_dict = {
 "E" : 1,
 "E10+" : 5,
 "M" : 10,
 "T" : 15
}

```
# train_df["RATING"] = train_df["RATING"].map(rating_dict)
# test_df["RATING"] = test_df["RATING"].map(rating_dict)
# combine["RATING"] = combine["RATING"].map(rating_dict)
```

In [59]: # train_df["Skills"] = inv_boxcox(train_df.USER_POINTS, 0.26) * train_df.RATING
test_df["Skills"] = inv_boxcox(test_df.USER_POINTS, 0.26) * test_df.RATING
test_df["Skills"] = test_df["Skills"].fillna(np.mean(train_df.Skills))
combine["Skills"] = inv_boxcox(combine.USER_POINTS, 0.26) * combine.RATING
combine["Skills"] = combine["Skills"].fillna(np.mean(train_df.Skills))
train_df["Skills"] = boxcox(train_df.Skills, 0.20)
test_df["Skills"] = boxcox(test_df.Skills, 0.20)
combine["Skills"] = boxcox(combine.Skills, 0.20)

In [60]: train_df.skew()

Out[60]:

ID	-0.010394
YEAR	0.121266
CRITICS_POINTS	0.018155
USER_POINTS	0.018782
SalesInMillions	-0.001442
dtype:	float64

In [61]: # modify_a_col(train_df.Skills, 0.20)

In [62]: print(test_df.CONSOLE.unique())

['ps2' 'psp' 'x' '3ds' 'ds' 'pc' 'x360' 'xone' 'wii' 'gc' 'psv' 'gba'
'ps3' 'wiiu' 'ps4' 'ps' 'dc']

Out[63]: len(train_df.CONSOLE.unique())

17

In [64]: print(train_df.CONSOLE.unique())

In [65]: console_dict = {
 "x" : "x-type",
 "xone" : "x-type",
 "x360" : "x-type",
 "psp" : "p-type",
 "ps2" : "p-type",
 "ps3" : "p-type",
 "ps4" : "p-type",
 "ps" : "p-type",
 "psv" : "p-type",
 "pc" : "pc-type",
 "wii" : "w-type",
 "wiiu" : "w-type",
 "ds" : "d-type",
 "3ds" : "d-type",
 "dc" : "d-type",
 "gba" : "g-type",
 "gc" : "g-type",
}

```
print(len(console_dict.keys()))
print(set(console_dict.keys()) == set(train_df.CONSOLE.unique()))
# train_df["CONSOLE"] = train_df.CONSOLE.map(console_dict)
# test_df["CONSOLE"] = test_df.CONSOLE.map(console_dict)
# combine["CONSOLE"] = combine.CONSOLE.map(console_dict)
```

17
True

In [66]: # train_df["How_much_Old"] = train_df["YEAR"].apply(lambda x : 2020 - x)
test_df["How_much_Old"] = test_df["YEAR"].apply(lambda x : 2020 - x)
combine["How_much_Old"] = combine["YEAR"].apply(lambda x : 2020 - x)
train_df = train_df.drop("YEAR",axis = 1)
test_df = test_df.drop("YEAR",axis = 1)
combine = combine.drop("YEAR",axis = 1)

In [67]: def move_target_to_last(dataset, col_name):
 x = dataset[col_name]
 dataset = dataset.drop(col_name, axis = 1)
 dataset[col_name] = x
 return dataset

In [68]: train_df = move_target_to_last(train_df, "SalesInMillions")

In [69]: train_df.head()

Out[69]:

	ID	CONSOLE	YEAR	CATEGORY	PUBLISHER	RATING	CRITICS_POINTS	USER_POINTS	SalesInMillions
0	2860	ds	2008	role-playing	Nintendo	E	0.894459	-1.024760	0.623434
1	731	wii	2012	simulation	Konami Digital Entertainment	E10+	1.796218	0.527919	-1.257900
2	495	ps2	2012	shooter	Activision	M	1.219271	-2.811454	-0.576469
3	2641	ps2	2002	sports	Electronic Arts	E	1.163286	-0.970196	0.339633
4	811	ps3	2013	action	Activision	M	0.723042	-2.267121	-1.814317

In [70]: test_df.head()

Out[70]:

	ID	CONSOLE	YEAR	CATEGORY	PUBLISHER	RATING	CRITICS_POINTS	USER_POINTS	SalesInMillions
0	4310	ps2	2008	action	Tecmo Koei	T	1.122234	-0.664144	
1	4011	psp	2007	strategy	Atari	E10+	1.338705	-1.907006	
2	2185	ps2	2004	shooter	Electronic Arts	T	0.944129	-1.979223	
3	1644	x	2006	action	Electronic Arts	E	0.914674	-0.125732	
4	188	3ds	2011	racing	Ubisoft	E10+	0.146945	-1.371757	

In [71]: train_df.corr()

Out[71]:

	ID	YEAR	CRITICS_POINTS	USER_POINTS	SalesInMillions
ID	1.000000	-0.052969	0.007047	0.061334	-0.032628
YEAR	-0.052969	1.000000	-0.181344	-0.415385	0.004861
CRITICS_POINTS	0.007047	-0.181344	1.000000	0.521520	-0.119885
USER_POINTS	0.061334	-0.415385	0.521520	1.000000	-0.205847
SalesInMillions	-0.032628	0.004861	-0.119885	-0.205847	1.000000

In [72]: new_train = train_df.copy()
new_test = test_df.copy()
new_train = new_train.drop("CRITICS_POINTS",axis = 1)
new_test = new_test.drop("CRITICS_POINTS", axis = 1)

In [73]: train_df.head()

Out[73]:

	ID	CONSOLE	YEAR	CATEGORY	PUBLISHER	RATING	CRITICS_POINTS	USER_POINTS	SalesInMillions
0	2860	ds	2008	role-playing	Nintendo	E	0.894459	-1.024760	0.623434
1	731	wii	2012	simulation	Konami Digital Entertainment	E10+	1.796218	0.527919	-1.257900
2	495	ps2	2012	shooter	Activision	M	1.219271	-2.811454	-0.576469
3	2641	ps2	2002	sports	Electronic Arts	E	1.163286	-0.970196	0.339633
4	811	ps3	2013	action	Activision	M	0.723042	-2.267121	-1.814317

In [74]: class Jitter(object):
 def get_final_error(self, error, weight):
 return np.sqrt(boxcox(error,0.27) / (weight + 1e-38))
 def is_max_optimal(self):
 return False
 def evaluate(self, approxes, target, weight):
 assert len(approxes) == 1
 assert len(target) == len(approxes[0])
 approx = approxes[0]
 error_sum = 0.0
 weight_sum = 0.0
 for i in range(len(approx)):
 w = 1.0 if weight is None else weight[i]
 weight_sum += w
 error_sum += inv_boxcox(w,0.27) * ((inv_boxcox(approx[i],0.27) - inv_boxcox(target[i],0.27))**2)
 return error_sum, weight_sum

In [162]: class RmseObjective(object):
 def calc_ders_range(self, approxes, targets, weights):
 assert len(approxes) == len(targets)
 if weights is not None:
 assert len(weights) == len(approxes)
 targets = inv_boxcox(targets, 0.27)
 approxes = inv_boxcox(approxes, 0.27)
 result = []
 for index in range(len(targets)):
 der1 = targets[index] - approxes[index]
 der2 = -1
 if weights is not None:
 der1 *= weights[index]
 der2 = weights[index]
 result.append((der1, der2))
 return result

In [163]: X_train, X_test, y_train, y_test = train_test_split(train_df.drop(["SalesInMillions"],axis = 1), train_df["SalesInMillions"], test_size = 0.2, random_state=8)

In [164]: cat_columns=train_df.select_dtypes(include=['object', 'category']).columns.tolist()
cat_columns

Out[164]: ['CONSOLE', 'CATEGORY', 'PUBLISHER', 'RATING']

In [165]: model = CatBoostRegressor(use_best_model=True,learning_rate=0.01,n_estimators=10000,objective=RmseObjective(),cat_features=cat_columns,eval_metric=Jitter())

[166]	fit(X=train, y=train, eval_set=(X=test, y=test), plot=True)				
	learn: 0.1539918	test: 0.242258 best: 0.242258 (9)	total: 57ms	remaining: 9m	
1	learn: 0.1538974	test: 0.242804 best: 0.242804 (1)	total: 111ms	remaining: 9m	
17:	learn: 0.1539670	test: 0.241748 best: 0.2417748 (2)	total: 116ms	remaining: 9m	
38:	learn: 0.1536888	test: 0.241586 best: 0.2415688 (3)	total: 223ms	remaining: 9m	
41:	learn: 0.1534380	test: 0.241268 best: 0.2413268 (4)	total: 290ms	remaining: 9m	
38:	learn: 0.1533956	test: 0.241268 best: 0.241464 (5)	total: 343ms	remaining: 9m	
61:	learn: 0.1531989	test: 0.240966 best: 0.240926 (6)	total: 447ms	remaining: 10	
7:	learn: 0.1538973	test: 0.240745 best: 0.240745 (7)	total: 560ms	remaining: 11	
m 39:	learn: 0.1528466	test: 0.240452 best: 0.240425 (8)	total: 639ms	remaining: 11	
m 195:	learn: 0.1525498	test: 0.240188 best: 0.240188 (9)	total: 680ms	remaining: 11	
m 5:	learn: 0.1525678	test: 0.239924 best: 0.239924 (10)	total: 722ms	remaining: 10	
11:	learn: 0.1525341	test: 0.239712 best: 0.239712 (11)	total: 767ms	remaining: 10	
m 88:	learn: 0.1523313	test: 0.239479 best: 0.239479 (12)	total: 817ms	remaining: 10	
m 27:	learn: 0.1519417	test: 0.239241 best: 0.239241 (13)	total: 861ms	remaining: 10	
m 43:	learn: 0.151824	test: 0.238996 best: 0.238996 (14)	total: 907ms	remaining: 10	
m 4:	learn: 0.1514419	test: 0.238761 best: 0.238651 (15)	total: 950ms	remaining: 9m	
16:	learn: 0.1512377	test: 0.238561 best: 0.238556 (16)	total: 1.02s	remaining: 9m	
57:	learn: 0.1510944	test: 0.238343 best: 0.238343 (17)	total: 1.09s	remaining: 10	
m 7:	learn: 0.1508691	test: 0.238071 best: 0.238072 (18)	total: 1.16s	remaining: 10	
18:	learn: 0.1506497	test: 0.237824 best: 0.237824 (19)	total: 1.24s	remaining: 10	
m 16:	learn: 0.1504106	test: 0.237639 best: 0.237639 (20)	total: 1.3s	remaining: 10	
m 75:	learn: 0.1501438	test: 0.237428 best: 0.2374238 (21)	total: 1.36s	remaining: 10	
21:	learn: 0.149893	test: 0.237184 best: 0.237184 (22)	total: 1.42s	remaining: 10	
m 165:	learn: 0.1498370	test: 0.236932 best: 0.236934 (23)	total: 1.47s	remaining: 10	
m 45:	learn: 0.1495853	test: 0.236659 best: 0.236659 (24)	total: 1.53s	remaining: 10	
m 113:	learn: 0.1493962	test: 0.236358 best: 0.2363548 (25)	total: 1.58s	remaining: 10	
m 135:	learn: 0.1493362	test: 0.236175 best: 0.2361754 (26)	total: 1.66s	remaining: 10	
m 13:	learn: 0.1489734	test: 0.235871 best: 0.2358761 (27)	total: 1.74s	remaining: 10	
m 2:	learn: 0.1486937	test: 0.235492 best: 0.235494 (28)	total: 1.83s	remaining: 10	
m 295:	learn: 0.1483129	test: 0.235387 best: 0.2353687 (29)	total: 1.9s	remaining: 10	
m 38:	learn: 0.1482975	test: 0.235127 best: 0.235127 (30)	total: 1.95s	remaining: 10	
m 185:	learn: 0.1481631	test: 0.234912 best: 0.234912 (31)	total: 2.02s	remaining: 10	
m 27:	learn: 0.1479626	test: 0.234682 best: 0.234682 (32)	total: 2.07s	remaining: 10	
m 245:	learn: 0.1478463	test: 0.234438 best: 0.234438 (33)	total: 2.13s	remaining: 10	
m 24:	learn: 0.1475439	test: 0.234295 best: 0.2342795 (34)	total: 2.19s	remaining: 10	
m 35:	learn: 0.147138	test: 0.234094 best: 0.2341094 (35)	total: 2.25s	remaining: 10	
m 25:	learn: 0.1467308	test: 0.233938 best: 0.2339538 (36)	total: 2.32s	remaining: 10	
m 225:	learn: 0.1462947	test: 0.233744 best: 0.2337444 (37)	total: 2.38s	remaining: 10	
m 38:	learn: 0.1459285	test: 0.233444 best: 0.233444 (38)	total: 2.43s	remaining: 10	
m 13:	learn: 0.1457825	test: 0.233294 best: 0.2332964 (39)	total: 2.48s	remaining: 10	
m 18:	learn: 0.1455981	test: 0.233094 best: 0.2330994 (40)	total: 2.52s	remaining: 10	
m 35:	learn: 0.1451601	test: 0.232938 best: 0.2329538 (41)	total: 2.57s	remaining: 10	
m 81:	learn: 0.1450339	test: 0.232758 best: 0.2327581 (42)	total: 2.61s	remaining: 10	
42:	learn: 0.1448285	test: 0.232477 best: 0.232477 (43)	total: 2.67s	remaining: 10	
m 45:	learn: 0.1444746	test: 0.232382 best: 0.232382 (44)	total: 2.72s	remaining: 10	
m 1:	learn: 0.1443997	test: 0.232176 best: 0.2321726 (45)	total: 2.77s	remaining: 9m	
45:	learn: 0.1438174	test: 0.231992 best: 0.231992 (46)	total: 2.82s	remaining: 9m	
57:	learn: 0.1434721	test: 0.231877 best: 0.231877 (47)	total: 2.87s	remaining: 9m	
48:	learn: 0.143343	test: 0.231761 best: 0.2317361 (48)	total: 2.94s	remaining: 9m	
56:	learn: 0.1432258	test: 0.231589 best: 0.231589 (49)	total: 2.99s	remaining: 9m	
50:	learn: 0.1428979	test: 0.231348 best: 0.231348 (50)	total: 3.03s	remaining: 9m	
51:	learn: 0.1422742	test: 0.231123 best: 0.231123 (51)	total: 3.08s	remaining: 9m	
52:	learn: 0.1419283	test: 0.230829 best: 0.230829 (52)	total: 3.15s	remaining: 9m	
53:	learn: 0.1418514	test: 0.230739 best: 0.230739 (53)	total: 3.19s	remaining: 9m	
47:	learn: 0.1413294	test: 0.230597 best: 0.230597 (54)	total: 3.23s	remaining: 9m	
55:	learn: 0.1412052	test: 0.230483 best: 0.230483 (55)	total: 3.28s	remaining: 9m	
52:	learn: 0.1411132	test: 0.230278 best: 0.230278 (56)	total: 3.33s	remaining: 9m	
51:	learn: 0.1406843	test: 0.229988 best: 0.229988 (57)	total: 3.38s	remaining: 9m	
50:	learn: 0.1405859	test: 0.229792 best: 0.229794 (58)	total: 3.44s	remaining: 9m	
49:	learn: 0.1404378	test: 0.229637 best: 0.229637 (59)	total: 3.52s	remaining: 9m	
48:	learn: 0.1403128	test: 0.229527 best: 0.229527 (60)	total: 3.58s	remaining: 9m	
39:	learn: 0.1398268	test: 0.229366 best: 0.229366 (61)	total: 3.63s	remaining: 9m	
62:	learn: 0.1396205	test: 0.229225 best: 0.229226 (62)	total: 3.68s	remaining: 9m	
38:	learn: 0.1393488	test: 0.228842 best: 0.228842 (63)	total: 3.73s	remaining: 9m	
38:	learn: 0.1393562	test: 0.228718 best: 0.228187 (64)	total: 3.79s	remaining: 9m	
65:	learn: 0.1396126	test: 0.228579 best: 0.228579 (65)	total: 3.86s	remaining: 9m	
38:	learn: 0.1386678	test: 0.228543 best: 0.228543 (66)	total: 3.92s	remaining: 9m	
67:	learn: 0.1384946	test: 0.228343 best: 0.228343 (67)	total: 3.97s	remaining: 9m	
68:	learn: 0.1383943	test: 0.228164 best: 0.228164 (68)	total: 4.03s	remaining: 9m	
69:	learn: 0.1383259	test: 0.228188 best: 0.228188 (69)	total: 4.1s	remaining: 9m	
70:	learn: 0.1381759	test: 0.227893 best: 0.227893 (70)	total: 4.15s	remaining: 9m	
48:	learn: 0.1378975	test: 0.227589 best: 0.227589 (71)	total: 4.19s	remaining: 9m	
72:	learn: 0.1377522	test: 0.227523 best: 0.227523 (72)	total: 4.23s	remaining: 9m	
73:	learn: 0.1376426	test: 0.227476 best: 0.227442 (73)	total: 4.29s	remaining: 9m	
35:	learn: 0.1375455	test: 0.227171 best: 0.227171 (74)	total: 4.34s	remaining: 9m	
35:	learn: 0.1374624	test: 0.227438 best: 0.227438 (75)	total: 4.39s	remaining: 9m	
36:	learn: 0.137308	test: 0.226913 best: 0.226913 (76)	total: 4.47s	remaining: 9m	
77:	learn: 0.1370978	test: 0.226755 best: 0.226755 (77)	total: 4.54s	remaining: 9m	
78:	learn: 0.1370675	test: 0.226585 best: 0.226585 (78)	total: 4.61s	remaining: 9m	
80:	learn: 0.136895	test: 0.226427 best: 0.226427 (79)	total: 4.65s	remaining: 9m	
36:	learn: 0.1366846	test: 0.226232 best: 0.226232 (80)	total: 4.7s	remaining: 9m	
36:	learn: 0.1366389	test: 0.226195 best: 0.226195 (81)	total: 4.75s	remaining: 9m	
82:	learn: 0.1365782	test: 0.226065 best: 0.226065 (82)	total: 4.8s	remaining: 9m	
83:	learn: 0.1364895	test: 0.225945 best: 0.225945 (83)	total: 4.84s	remaining: 9m	
84:	learn: 0.1363951	test: 0.225849 best: 0.225848 (84)	total: 4.88s	remaining: 9m	
85:	learn: 0.1363258	test: 0.225762 best: 0.225762 (85)	total: 4.93s	remaining: 9m	
86:	learn: 0.1360677	test: 0.225583 best: 0.225583 (86)	total: 4.98s	remaining: 9m	
87:	learn: 0.1359837	test: 0.225474 best: 0.225474 (87)	total: 5.04s	remaining: 9m	
27:	learn: 0.1359481	test: 0.225432 best: 0.225432 (88)	total: 5.08s	remaining: 9m	
59:	learn: 0.1358481	test: 0.225298 best: 0.225295 (89)	total: 5.13s	remaining: 9m	
60:	learn: 0.1358484	test: 0.225125 best: 0.225125 (90)	total: 5.19s	remaining: 9m	
25:	learn: 0.1356471	test: 0.225178 best: 0.225178 (91)	total: 5.24s	remaining: 9m	
28:	learn: 0.1355376	test: 0.225059 best: 0.225059 (92)	total: 5.28s	remaining: 9m	
92:	learn: 0.1354913	test: 0.224915 best: 0.224915 (93)	total: 5.33s	remaining: 9m	
94:	learn: 0.1356865	test: 0.224866 best: 0.224866 (94)	total: 5.37s	remaining: 9m	
95:	learn: 0.1349119	test: 0.224743 best: 0.224743 (95)	total: 5.42s	remaining: 9m	
96:	learn: 0.1348454	test: 0.224658 best: 0.224658 (96)	total: 5.5s	remaining: 9m	
97:	learn: 0.1347807	test: 0.224542 best: 0.224542 (97)	total: 5.58s	remaining: 9m	
23:	learn: 0.1347359	test: 0.224497 best: 0.224497 (98)	total: 5.62s	remaining: 9m	
99:	learn: 0.1346463	test: 0.224394 best: 0.224394 (99)	total: 5.67s	remaining: 9m	
100:	learn: 0.1344336	test: 0.224366 best: 0.224399 (100)	total: 5.72s	remaining: 9m	
20:	learn: 0.1342662	test: 0.224214 best: 0.224214 (101)	total: 5.77s	remaining: 9m	
102:	learn: 0.134684	test: 0.224059 best: 0.224059 (102)	total: 5.84s	remaining: 9m	
21:	learn: 0.133568	test: 0.223895 best: 0.223895 (103)	total: 5.9s	remaining: 9m	
20:	learn: 0.133568	test: 0.223759 best: 0.223759 (104)	total: 5.95s	remaining: 9m	
105:	learn: 0.1335814	test: 0.223675 best: 0.223675 (105)	total: 5.99s	remaining: 9m	
106:	learn: 0.1334357	test: 0.223589 best: 0.223589 (106)	total: 6.05s	remaining: 9m	
107:	learn: 0.1331347	test: 0.223427 best: 0.223427 (107)	total: 6.09s	remaining: 9m	
178:	learn: 0.1328898	test: 0.223295 best: 0.223227 (108)	total: 6.14s	remaining: 9m	
109:	learn: 0.1327363	test: 0.223285 best: 0.223285 (109)	total: 6.19s	remaining: 9m	
110:	learn: 0.132593	test: 0.223235 best: 0.223235 (110)	total: 6.23s	remaining: 9m	
111:	learn: 0.1325122	test: 0.223175 best: 0.223175 (111)	total: 6.29s	remaining: 9m	
112:	learn: 0.1324898	test: 0.223158 best: 0.223158 (112)	total: 6.33s	remaining: 9m	
113:	learn: 0.132376	test: 0.223117 best: 0.223117 (113)	total: 6.37s	remaining: 9m	
114:	learn: 0.1323938	test: 0.223069 best: 0.223069 (114)	total: 6.42s	remaining: 9m	
115:	learn: 0.1328234	test: 0.223033 best: 0.223033 (115)	total: 6.49s	remaining: 9m	
116:	learn: 0.131877	test: 0.222966 best: 0.222966 (116)	total: 6.56s	remaining: 9m	
117:	learn: 0.1318285	test: 0.222834 best: 0.222834 (117)	total: 6.61s	remaining: 9m	
118:	learn: 0.1317788	test: 0.222745 best: 0.222745 (118)	total: 6.66s	remaining: 9m	
119:	learn: 0.1316519	test: 0.222696 best: 0.222696 (119)	total: 6.7s	remaining: 9m	
120:	learn: 0.1316888	test: 0.222546 best: 0.222546 (120)	total: 6.76s	remaining: 9m	
121:	learn: 0.1314932	test: 0.222527 best: 0.222527 (121)	total: 6.83s	remaining: 9m	
122:	learn: 0.1313380	test: 0.222457 best: 0.222457 (122)	total: 6.88s	remaining: 9m	
123:	learn: 0.1311185	test: 0.222429 best: 0.222429 (123)	total: 6.93s	remaining: 9m	
124:	learn: 0.1315522	test: 0.222251 best: 0.222251 (124)	total: 6.98s	remaining: 9m	
118:	learn: 0.1318080	test: 0.222182 best: 0.222182 (125)	total: 7.03s	remaining: 9m	
126:	learn: 0.1308237	test: 0.222138 best: 0.222138 (126)	total: 7.08s	remaining: 9m	
127:	learn: 0.1308675	test: 0.222045 best: 0.222045 (127)	total: 7.13s	remaining: 9m	
128:	learn: 0.1308268	test: 0.221972 best: 0.221972 (128)	total: 7.18s	remaining: 9m	
129:	learn: 0.1307871	test: 0.221937 best: 0.221937 (129)	total: 7.23s	remaining: 9m	
98:	learn: 0.1306752	test: 0.221928 best: 0.221928 (130)	total: 7.28s	remaining: 9m	
8:	learn: 0.1306742	test: 0.221846 best: 0.221846 (131)	total: 7.36s	remaining: 9m	
131:	learn: 0.1305468	test: 0.221863 best: 0.221846 (131)	total: 7.41s	remaining: 9m	
132:	learn: 0.1304598	test: 0.221876 best: 0.221876 (132)	total: 7.47s	remaining: 9m	
134:	learn: 0.1304206	test: 0.221748 best: 0.221748 (134)	total: 7.54s	remaining: 9m	
108:	learn: 0.1303747	test: 0.221679 best: 0.221679 (135)	total: 7.59s	remaining: 9m	
136:	learn: 0.1303151	test: 0.221785 best: 0.221785 (136)	total: 7.67s	remaining: 9m	
137:	learn: 0.130129	test: 0.221611 best: 0.221611 (137)	total: 7.72s	remaining: 9m	
11:	learn: 0.1301883	test: 0.221595 best: 0.221595 (138)	total: 7.76s	remaining: 9m	
139:	learn: 0.1306631	test: 0.221514 best: 0.221514 (139)	total: 7.81s	remaining: 9m	
96:	learn: 0.1299883	test: 0.221459 best: 0.221459 (140)	total: 7.86s	remaining: 9m	
141:	learn: 0.1299215	test: 0.221468 best: 0.221459 (140)	total: 7.91s	remaining: 9m	
142:	learn:				

426:	learn:	0.12254083	test:	0.2181958	best:	0.2181616	(422)	total:	22.8s	remaining:	8m
427:	learn:	0.1225396	test:	0.2181934	best:	0.2181616	(422)	total:	22.8s	remaining:	8m
428:	learn:	0.1225245	test:	0.2181902	best:	0.2181616	(422)	total:	22.8s	remaining:	8m
429:	learn:	0.1225977	test:	0.2182091	best:	0.2181616	(422)	total:	22.9s	remaining:	8m
430:	learn:	0.1224273	test:	0.2182064	best:	0.2181616	(422)	total:	22.9s	remaining:	8m
431:	learn:	0.1224367	test:	0.2182258	best:	0.2181616	(422)	total:	23s	remaining:	8m
432:	learn:	0.1224279	test:	0.2182171	best:	0.2181616	(422)	total:	23.1s	remaining:	8m
433:	learn:	0.1224466	test:	0.2182166	best:	0.2181616	(422)	total:	23.1s	remaining:	8m
434:	learn:	0.1224646	test:	0.2182149	best:	0.2181616	(422)	total:	23.2s	remaining:	8m
435:	learn:	0.1223933	test:	0.2182139	best:	0.2181616	(422)	total:	23.2s	remaining:	8m
436:	learn:	0.1223581	test:	0.2181672	best:	0.2181616	(422)	total:	23.2s	remaining:	8m
437:	learn:	0.1223367	test:	0.2181902	best:	0.2181616	(422)	total:	23.3s	remaining:	8m
438:	learn:	0.1223318	test:	0.2181945	best:	0.2181616	(422)	total:	23.3s	remaining:	8m
439:	learn:	0.1223048	test:	0.2181598	best:	0.2181598	(439)	total:	23.4s	remaining:	8m
440:	learn:	0.1223034	test:	0.2181904	best:	0.2181598	(439)	total:	23.4s	remaining:	8m
441:	learn:	0.1222765	test:	0.2181926	best:	0.2181598	(439)	total:	23.5s	remaining:	8m
442:	learn:	0.1222735	test:	0.2181876	best:	0.2181598	(439)	total:	23.5s	remaining:	8m
443:	learn:	0.1222246	test:	0.2180828	best:	0.2180828	(443)	total:	23.6s	remaining:	8m
444:	learn:	0.12222108	test:	0.2180796	best:	0.2180796	(444)	total:	23.7s	remaining:	8m
445:	learn:	0.1222047	test:	0.2180795	best:	0.2180795	(445)	total:	23.7s	remaining:	8m
446:	learn:	0.1222911	test:	0.2180767	best:	0.2180767	(446)	total:	23.8s	remaining:	8m
447:	learn:	0.1222808	test:	0.2180762	best:	0.2180762	(447)	total:	23.8s	remaining:	8m
448:	learn:	0.1221943	test:	0.2180795	best:	0.2180762	(447)	total:	23.9s	remaining:	8m
449:	learn:	0.1221815	test:	0.2180764	best:	0.2180762	(447)	total:	23.9s	remaining:	8m
450:	learn:	0.1221807	test:	0.2180764	best:	0.2180762	(447)	total:	24s	remaining:	8m
451:	learn:	0.1221809	test:	0.2180764	best:	0.2180762	(447)	total:	24s	remaining:	8m
452:	learn:	0.1221893	test:	0.2180755	best:	0.2180763	(452)	total:	24s	remaining:	8m
453:	learn:	0.1221795	test:	0.2180771	best:	0.2180763	(452)	total:	24.1s	remaining:	8m
454:	learn:	0.1221696	test:	0.2180828	best:	0.2180763	(452)	total:	24.2s	remaining:	8m
455:	learn:	0.1221696	test:	0.2180553	best:	0.2180553	(456)	total:	24.3s	remaining:	8m
456:	learn:	0.1221896	test:	0.2180737	best:	0.2180737	(457)	total:	24.3s	remaining:	8m
457:	learn:	0.1221834	test:	0.2180195	best:	0.2180737	(457)	total:	24.4s	remaining:	8m
458:	learn:	0.1221932	test:	0.2180138	best:	0.2180737	(457)	total:	24.4s	remaining:	8m
459:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.5s	remaining:	8m
460:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.5s	remaining:	8m
461:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.5s	remaining:	8m
462:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.5s	remaining:	8m
463:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
464:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
465:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
466:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
467:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
468:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
469:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
470:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
471:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
472:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
473:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
474:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
475:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
476:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
477:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
478:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
479:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
480:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
481:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
482:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
483:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
484:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
485:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
486:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
487:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
488:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
489:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
490:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
491:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
492:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
493:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
494:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
495:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
496:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
497:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
498:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
499:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
500:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
501:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
502:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
503:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
504:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
505:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
506:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
507:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
508:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
509:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
510:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
511:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
512:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
513:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
514:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
515:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
516:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
517:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
518:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
519:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
520:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
521:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
522:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
523:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
524:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
525:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
526:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
527:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
528:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
529:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
530:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
531:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
532:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
533:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
534:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
535:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
536:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
537:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
538:	learn:	0.1221832	test:	0.2180892	best:	0.2180737	(457)	total:	24.6s	remaining:	8m
539:	learn:	0.1221832	test:	0.2180892	best:	0.2180737					

854:	learn:	0.1184386	test:	0.2167372	best:	0.2167343	(853)	total:	44.4s	remaining:	7m
855:	learn:	0.1184272	test:	0.2167293	best:	0.2167293	(855)	total:	44.1s	remaining:	7m
586:	learn:	0.1184234	test:	0.2167316	best:	0.2167293	(855)	total:	44.1s	remaining:	7m
585:	learn:	0.1184387	test:	0.2167341	best:	0.2167293	(855)	total:	44.1s	remaining:	7m
857:	learn:	0.1184310	test:	0.2167341	best:	0.2167293	(855)	total:	44.1s	remaining:	7m
589:	learn:	0.1184330	test:	0.2167294	best:	0.2167293	(855)	total:	44.2s	remaining:	7m
859:	learn:	0.1184973	test:	0.2167421	best:	0.2167293	(855)	total:	44.2s	remaining:	7m
590:	learn:	0.1184973	test:	0.2167421	best:	0.2167293	(855)	total:	44.2s	remaining:	7m
860:	learn:	0.1183862	test:	0.2167301	best:	0.2167293	(855)	total:	44.3s	remaining:	7m
498:	learn:	0.1183816	test:	0.2167294	best:	0.2167293	(855)	total:	44.3s	remaining:	7m
861:	learn:	0.1183816	test:	0.2167294	best:	0.2167293	(855)	total:	44.3s	remaining:	7m
862:	learn:	0.1183746	test:	0.2167308	best:	0.2167293	(855)	total:	44.4s	remaining:	7m
499:	learn:	0.1183747	test:	0.2167308	best:	0.2167293	(855)	total:	44.4s	remaining:	7m
499:	learn:	0.1183747	test:	0.2167308	best:	0.2167293	(855)	total:	44.4s	remaining:	7m
864:	learn:	0.1183719	test:	0.2167303	best:	0.2167293	(855)	total:	44.5s	remaining:	7m
865:	learn:	0.1183752	test:	0.2167038	best:	0.2167038	(865)	total:	44.5s	remaining:	7m
866:	learn:	0.1183508	test:	0.2167064	best:	0.2167038	(865)	total:	44.6s	remaining:	7m
867:	learn:	0.1183362	test:	0.2166870	best:	0.2166870	(867)	total:	44.6s	remaining:	7m
499:	learn:	0.1183284	test:	0.2166869	best:	0.2166869	(868)	total:	44.7s	remaining:	7m
869:	learn:	0.1183241	test:	0.2166792	best:	0.2166792	(869)	total:	44.7s	remaining:	7m
499:	learn:	0.1183195	test:	0.2166774	best:	0.2166774	(870)	total:	44.8s	remaining:	7m
870:	learn:	0.1183967	test:	0.2166705	best:	0.2166705	(871)	total:	44.8s	remaining:	7m
871:	learn:	0.1183951	test:	0.2166738	best:	0.2166705	(871)	total:	44.8s	remaining:	7m
499:	learn:	0.1182775	test:	0.2166704	best:	0.2166704	(873)	total:	44.9s	remaining:	7m
874:	learn:	0.1182699	test:	0.2166775	best:	0.2166704	(873)	total:	45s	remaining:	7m
499:	learn:	0.1182699	test:	0.2166775	best:	0.2166704	(873)	total:	45s	remaining:	7m
875:	learn:	0.1182427	test:	0.2166202	best:	0.2166202	(876)	total:	45.1s	remaining:	7m
877:	learn:	0.1182408	test:	0.2166397	best:	0.2166197	(877)	total:	45.1s	remaining:	7m
499:	learn:	0.1182354	test:	0.2166295	best:	0.2166197	(877)	total:	45.2s	remaining:	7m
499:	learn:	0.1182354	test:	0.2166295	best:	0.2166197	(877)	total:	45.2s	remaining:	7m
878:	learn:	0.1182325	test:	0.2166320	best:	0.2166197	(877)	total:	45.2s	remaining:	7m
499:	learn:	0.1182254	test:	0.2166363	best:	0.2166197	(877)	total:	45.3s	remaining:	7m
881:	learn:	0.1182136	test:	0.2166215	best:	0.2166197	(877)	total:	45.3s	remaining:	7m
882:	learn:	0.1181983	test:	0.2166132	best:	0.2166132	(882)	total:	45.4s	remaining:	7m
499:	learn:	0.1181954	test:	0.2166047	best:	0.2166047	(883)	total:	45.4s	remaining:	7m
884:	learn:	0.1181965	test:	0.2166216	best:	0.2166047	(883)	total:	45.4s	remaining:	7m
499:	learn:	0.1181920	test:	0.2166218	best:	0.2166047	(883)	total:	45.4s	remaining:	7m
886:	learn:	0.1181745	test:	0.2166158	best:	0.2166047	(883)	total:	45.6s	remaining:	7m
887:	learn:	0.1181726	test:	0.2166199	best:	0.2166047	(883)	total:	45.6s	remaining:	7m
888:	learn:	0.1181670	test:	0.2166203	best:	0.2166047	(883)	total:	45.7s	remaining:	7m
889:	learn:	0.1181670	test:	0.2166206	best:	0.2166047	(883)	total:	45.7s	remaining:	7m
499:	learn:	0.1181579	test:	0.2166293	best:	0.2166047	(883)	total:	45.8s	remaining:	7m
891:	learn:	0.1181526	test:	0.2166251	best:	0.2166047	(883)	total:	45.8s	remaining:	7m
499:	learn:	0.1181422	test:	0.2166295	best:	0.2166047	(883)	total:	45.8s	remaining:	7m
893:	learn:	0.1181307	test:	0.2166208	best:	0.2166047	(883)	total:	45.9s	remaining:	7m
894:	learn:	0.1181133	test:	0.2166095	best:	0.2166047	(883)	total:	46s	remaining:	7m
499:	learn:	0.1181092	test:	0.2165971	best:	0.2165973	(895)	total:	46.1s	remaining:	7m
896:	learn:	0.1181044	test:	0.2165944	best:	0.2165944	(896)	total:	46.1s	remaining:	7m
499:	learn:	0.1181012	test:	0.2165919	best:	0.2165919	(897)	total:	46.1s	remaining:	7m
898:	learn:	0.1180943	test:	0.2165861	best:	0.2165862	(898)	total:	46.2s	remaining:	7m
900:	learn:	0.1180864	test:	0.2165662	best:	0.2165662	(899)	total:	46.2s	remaining:	7m
499:	learn:	0.1180669	test:	0.2165726	best:	0.2165662	(899)	total:	46.3s	remaining:	7m
901:	learn:	0.1180659	test:	0.2165680	best:	0.2165662	(899)	total:	46.3s	remaining:	7m
499:	learn:	0.1180593	test:	0.2165699	best:	0.2165662	(899)	total:	46.4s	remaining:	7m
903:	learn:	0.1180637	test:	0.2165647	best:	0.2165662	(903)	total:	46.4s	remaining:	7m
904:	learn:	0.1180621	test:	0.2165671	best:	0.2165647	(903)	total:	46.5s	remaining:	7m
499:	learn:	0.1180623	test:	0.2165586	best:	0.2165633	(905)	total:	46.5s	remaining:	7m
906:	learn:	0.1180623	test:	0.2165586	best:	0.2165633	(905)	total:	46.5s	remaining:	7m
499:	learn:	0.1180614	test:	0.2165621	best:	0.2165586	(906)	total:	46.6s	remaining:	7m
908:	learn:	0.1180614	test:	0.2165637	best:	0.2165586	(906)	total:	46.7s	remaining:	7m
499:	learn:	0.1180610	test:	0.2165643	best:	0.2165586	(906)	total:	46.7s	remaining:	7m
910:	learn:	0.1179939	test:	0.2165656	best:	0.2165586	(906)	total:	46.8s	remaining:	7m
911:	learn:	0.1179896	test:	0.2165652	best:	0.2165586	(906)	total:	46.8s	remaining:	7m
499:	learn:	0.1179491	test:	0.2165578	best:	0.2165578	(912)	total:	46.9s	remaining:	7m
913:	learn:	0.1179467	test:	0.2165577	best:	0.2165577	(913)	total:	46.9s	remaining:	7m
914:	learn:	0.1179399	test:	0.2165523	best:	0.2165523	(914)	total:	47s	remaining:	7m
499:	learn:	0.1179385	test:	0.2165382	best:	0.2165382	(915)	total:	47s	remaining:	7m
916:	learn:	0.1179391	test:	0.2165216	best:	0.2165382	(916)	total:	47.1s	remaining:	7m
499:	learn:	0.1179394	test:	0.2165121	best:	0.2165128	(917)	total:	47.1s	remaining:	7m
918:	learn:	0.1179783	test:	0.2165084	best:	0.2165084	(918)	total:	47.2s	remaining:	7m
499:	learn:	0.1179878	test:	0.2165096	best:	0.2165086	(919)	total:	47.2s	remaining:	7m
920:	learn:	0.1178843	test:	0.2165049	best:	0.2165086	(919)	total:	47.3s	remaining:	7m
921:	learn:	0.1178776	test:	0.2165212	best:	0.2165086	(919)	total:	47.3s	remaining:	7m
499:	learn:	0.1178654	test:	0.2165226	best:	0.2165086	(919)	total:	47.4s	remaining:	7m
923:	learn:	0.1178458	test:	0.2165203	best:	0.2165086	(919)	total:	47.5s	remaining:	7m
499:	learn:	0.1178316	test:	0.2165048	best:	0.2165086	(919)	total:	47.5s	remaining:	7m
925:	learn:	0.1178235	test:	0.2165067	best:	0.2165086	(919)	total:	47.7s	remaining:	7m
926:	learn:	0.1178181	test:	0.2165084	best:	0.2165086	(919)	total:	47.8s	remaining:	7m
499:	learn:	0.1178153	test:	0.2165084	best:	0.2165086	(919)	total:	47.8s	remaining:	7m
928:	learn:	0.1178116	test:	0.2165085	best:	0.2165086	(919)	total:	47.9s	remaining:	7m
499:	learn:	0.1178091	test:	0.2165073	best:	0.2165086	(919)	total:	47.9s	remaining:	7m
930:	learn:	0.1177951	test:	0.2165000	best:	0.2165086	(930)	total:	48s	remaining:	7m
931:	learn:	0.1177870	test:	0.2164943	best:	0.2164943	(931)	total:	48s	remaining:	7m
499:	learn:	0.1177774	test:	0.2164934	best:	0.2164934	(932)	total:	48.1s	remaining:	7m
933:	learn:	0.1177609	test:	0.2164871	best:	0.2164938	(933)	total:	48.1s	remaining:	7m
499:	learn:	0.1177521	test:	0.2164821	best:	0.2164821	(934)	total:	48.2s	remaining:	7m
935:	learn:	0.1177428	test:	0.2164744	best:	0.2164744	(935)	total:	48.3s	remaining:	7m
936:	learn:	0.1177237	test:	0.2164703	best:	0.2164703	(936)	total:	48.3s	remaining:	7m
499:	learn:	0.1177092	test:	0.2164795	best:	0.2164783	(936)	total:	48.4s	remaining:	7m
938:	learn:	0.1177022	test:	0.2164623	best:	0.2164703	(936)	total:	48.4s	remaining:	7m
499:	learn:	0.1176764	test:	0.2164656	best:	0.2164656	(940)	total:	48.5s	remaining:	7m
941:	learn:	0.1176715	test:	0.2164578	best:	0.2164578	(941)	total:	48.6s	remaining:	7m
499:	learn:	0.1176621	test:	0.2164601	best:	0.2164578	(941)	total:	48.6s	remaining:	7m
943:	learn:	0.1176478	test:	0.2164631	best:	0.2164578	(941)	total:	48.7s	remaining:	7m
499:	learn:	0.1176268	test:	0.2164443	best:	0.2164443	(944)	total:	48.7s	remaining:	7m
945:	learn:	0.1176187	test:	0.2164559	best:	0.2164443	(944)	total:	48.8s	remaining:	7m
499:	learn:	0.1176193	test:	0.2164574	best:	0.2164443	(944)	total:	48.8s	remaining:	7m
947:	learn:	0.1175951	test:	0.2164504	best:	0.2164443	(944)	total:	48.9s	remaining:	7m
948:	learn:	0.1175886	test:	0.2164495	best:	0.2164443	(944)	total:	48.9s	remaining:	7m
499:	learn:	0.1175737	test:	0.2164404	best:	0.2164404	(949)	total:	49s	remaining:	7m
950:	learn:	0.1175666	test:	0.2164366	best:	0.2164366	(950)	total:	49s	remaining:	7m
499:	learn:	0.1175637	test:	0.2164232	best:	0.2164232	(951)	total:	49.1s	remaining:	7m
952:	learn:	0.1175618	test:	0.2164221	best:	0.2164212	(952)	total:	49.1s	remaining:	7m
953:	learn:	0.1175512	test:	0.2164067	best:	0.2164067	(953)	total:	49.2s	remaining:	7m
499:	learn:	0.1175458	test:	0.2164701	best:	0.2164067	(953)	total:	49.2s	remaining:	7m
955:	learn:	0.1175441	test:	0.2164119	best:	0.2164067	(953)	total:	49.3s	remaining:	7m
499:	learn:	0.1175329	test:	0.2163936	best:	0.2163936	(956)	total:	49.3s	remaining:	7m
957:	learn:	0.1175283	test:	0.2163932	best:	0.2163932	(957)	total:	49.4s	remaining:	7m
958:	learn:	0.1175172	test:	0.2163867	best:	0.2163867	(958)	total:	49.4s	remaining:	7m
499:	learn:	0.1175061	test:	0.2163800	best:	0.2163800	(959)	total:	49.5s	remaining:	7m
960:	learn:	0.1174968	test:	0.2163769	best:	0.2163769	(960)	total:	49.5s	remaining:	7m
499:	learn:	0.1174897	test:	0.2163800	best:	0.2163769	(960)	total:	49.6s	remaining:	7m
962:	learn:	0.1174721	test:	0.2163829	best:	0.2163769	(960)	total:	49.6s	remaining:	7m
963:	learn:	0.1174615	test:	0.2163869	best:	0					

1700:	learn: 0.1126493	test: 0.2155564 best: 0.2155558 (1699)	total: 1m 32s	remaining: 7m
1701:	learn: 0.1126396	test: 0.2155578 best: 0.2155558 (1699)	total: 1m 32s	remaining: 7m
1702:	learn: 0.1125965	test: 0.2155569 best: 0.2155558 (1699)	total: 1m 32s	remaining: 7m
1703:	learn: 0.1125373	test: 0.2155581 best: 0.2155558 (1699)	total: 1m 32s	remaining: 7m
1704:	learn: 0.1125762	test: 0.2155558 best: 0.2155558 (1699)	total: 1m 32s	remaining: 7m
1705:	learn: 0.1125730	test: 0.2155563 best: 0.2155558 (1699)	total: 1m 32s	remaining: 7m
1706:	learn: 0.1125653	test: 0.2155584 best: 0.2155558 (1699)	total: 1m 32s	remaining: 7m
1707:	learn: 0.1125501	test: 0.2155587 best: 0.2155558 (1699)	total: 1m 32s	remaining: 7m
1708:	learn: 0.1125672	test: 0.2155574 best: 0.2155558 (1699)	total: 1m 32s	remaining: 7m
1709:	learn: 0.1125552	test: 0.2155583 best: 0.2155558 (1699)	total: 1m 32s	remaining: 7m
1710:	learn: 0.1125491	test: 0.2155649 best: 0.2155558 (1699)	total: 1m 32s	remaining: 7m
1711:	learn: 0.1125452	test: 0.2155570 best: 0.2155558 (1699)	total: 1m 32s	remaining: 7m
1712:	learn: 0.1125426	test: 0.2155589 best: 0.2155558 (1699)	total: 1m 32s	remaining: 7m
1713:	learn: 0.1125404	test: 0.2155615 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1714:	learn: 0.1125358	test: 0.2155622 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1715:	learn: 0.1125358	test: 0.2155601 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1716:	learn: 0.1125296	test: 0.2155617 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1717:	learn: 0.1125233	test: 0.2155646 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1718:	learn: 0.1125255	test: 0.2155604 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1719:	learn: 0.1125324	test: 0.2155614 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1720:	learn: 0.1125947	test: 0.2155632 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1721:	learn: 0.1124943	test: 0.2155730 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1722:	learn: 0.1124879	test: 0.2155745 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1723:	learn: 0.1124848	test: 0.2155727 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1724:	learn: 0.1124912	test: 0.2155756 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1725:	learn: 0.1124739	test: 0.2155767 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1726:	learn: 0.1124692	test: 0.2155755 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1727:	learn: 0.1124564	test: 0.2155757 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1728:	learn: 0.1124594	test: 0.2155937 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1729:	learn: 0.1124468	test: 0.2155957 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1730:	learn: 0.1124426	test: 0.2155966 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1731:	learn: 0.1124417	test: 0.2155974 best: 0.2155558 (1699)	total: 1m 33s	remaining: 7m
1732:	learn: 0.1124384	test: 0.2155954 best: 0.2155558 (1699)	total: 1m 34s	remaining: 7m
1733:	learn: 0.1124327	test: 0.2155957 best: 0.2155558 (1699)	total: 1m 34s	remaining: 7m
1734:	learn: 0.1124262	test: 0.2155963 best: 0.2155558 (1699)	total: 1m 34s	remaining: 7m
1735:	learn: 0.1124259	test: 0.2155965 best: 0.2155558 (1699)	total: 1m 34s	remaining: 7m
1736:	learn: 0.1124311	test: 0.2155952 best: 0.2155558 (1699)	total: 1m 34s	remaining: 7m
1737:	learn: 0.1124412	test: 0.2155913 best: 0.2155558 (1699)	total: 1m 34s	remaining: 7m
1738:	learn: 0.1124417	test: 0.2155957 best: 0.2155558 (1699)	total: 1m 34s	remaining: 7m
1739:	learn: 0.1124906	test: 0.2155956 best: 0.2155558 (1699)	total: 1m 34s	remaining: 7m
1740:	learn: 0.1123975	test: 0.2155899 best: 0.2155558 (1699)	total: 1m 34s	remaining: 7m
1741:	learn: 0.1123962	test: 0.2155872 best: 0.2155558 (1699)	total: 1m 34s	remaining: 7m
1742:	learn: 0.1123921	test: 0.2155869 best: 0.2155558 (1699)	total: 1m 34s	remaining: 7m
1743:	learn: 0.1123890	test: 0.2155865 best: 0.2155558 (1699)	total: 1m 34s	remaining: 7m
1744:	learn: 0.1123874	test: 0.2155878 best: 0.2155558 (1699)	total: 1m 34s	remaining: 7m
1745:	learn: 0.1123850	test: 0.2155782 best: 0.2155558 (1699)	total: 1m 34s	remaining: 7m
1746:	learn: 0.1123789	test: 0.2155768 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1747:	learn: 0.1123774	test: 0.2155754 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1748:	learn: 0.1123769	test: 0.2155780 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1749:	learn: 0.1123674	test: 0.2155731 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1750:	learn: 0.1123622	test: 0.2155761 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1751:	learn: 0.1123553	test: 0.2155824 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1752:	learn: 0.1123475	test: 0.2155739 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1753:	learn: 0.1123437	test: 0.2155739 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1754:	learn: 0.1123407	test: 0.2155740 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1755:	learn: 0.1123380	test: 0.2155750 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1756:	learn: 0.1123260	test: 0.2155692 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1757:	learn: 0.1123239	test: 0.2155707 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1758:	learn: 0.1123217	test: 0.2155766 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1759:	learn: 0.1123184	test: 0.2155716 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1760:	learn: 0.1123137	test: 0.2155729 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1761:	learn: 0.1123091	test: 0.2155729 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1762:	learn: 0.1122996	test: 0.2155768 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1763:	learn: 0.1122959	test: 0.2155793 best: 0.2155558 (1699)	total: 1m 35s	remaining: 7m
1764:	learn: 0.1122755	test: 0.2155785 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1765:	learn: 0.1122714	test: 0.2155782 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1766:	learn: 0.1122679	test: 0.2155762 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1767:	learn: 0.1122670	test: 0.2155764 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1768:	learn: 0.1122630	test: 0.2155795 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1769:	learn: 0.1122613	test: 0.2155806 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1770:	learn: 0.1122566	test: 0.2155803 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1771:	learn: 0.1122494	test: 0.2155812 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1772:	learn: 0.1122476	test: 0.2155812 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1773:	learn: 0.1122418	test: 0.2155806 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1774:	learn: 0.1122409	test: 0.2155849 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1775:	learn: 0.1122367	test: 0.2155805 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1776:	learn: 0.1122287	test: 0.2155845 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1777:	learn: 0.1122254	test: 0.2155841 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1778:	learn: 0.1122182	test: 0.2155870 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1779:	learn: 0.1122141	test: 0.2155867 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1780:	learn: 0.1122109	test: 0.2155897 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1781:	learn: 0.1122020	test: 0.2155913 best: 0.2155558 (1699)	total: 1m 36s	remaining: 7m
1782:	learn: 0.1121982	test: 0.2155882 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1783:	learn: 0.1121914	test: 0.2155969 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1784:	learn: 0.1121914	test: 0.2155984 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1785:	learn: 0.1121819	test: 0.2156047 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1786:	learn: 0.1121774	test: 0.2156057 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1787:	learn: 0.1121729	test: 0.2156053 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1788:	learn: 0.1121723	test: 0.2156004 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1789:	learn: 0.1121615	test: 0.2156093 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1790:	learn: 0.1121542	test: 0.2156036 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1791:	learn: 0.1121504	test: 0.2156020 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1792:	learn: 0.1121444	test: 0.2156008 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1793:	learn: 0.1121390	test: 0.2155994 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1794:	learn: 0.1121390	test: 0.2155994 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1795:	learn: 0.1121287	test: 0.2155927 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1796:	learn: 0.1121143	test: 0.2155859 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1797:	learn: 0.1121125	test: 0.2155847 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1798:	learn: 0.1121040	test: 0.2155824 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1799:	learn: 0.1120993	test: 0.2155815 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1800:	learn: 0.1120934	test: 0.2155777 best: 0.2155558 (1699)	total: 1m 37s	remaining: 7m
1801:	learn: 0.1120914	test: 0.2155771 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1802:	learn: 0.1120822	test: 0.2155786 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1803:	learn: 0.1120795	test: 0.2155751 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1804:	learn: 0.1120724	test: 0.2155749 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1805:	learn: 0.1120687	test: 0.2155781 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1806:	learn: 0.1120671	test: 0.2155771 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1807:	learn: 0.1120623	test: 0.2155827 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1808:	learn: 0.1120603	test: 0.2155827 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1809:	learn: 0.1120565	test: 0.2155822 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1810:	learn: 0.1120609	test: 0.2155814 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1811:	learn: 0.1120573	test: 0.2155789 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1812:	learn: 0.1120515	test: 0.2155809 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1813:	learn: 0.1120459	test: 0.2155699 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1814:	learn: 0.1120429	test: 0.2156106 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1815:	learn: 0.1120401	test: 0.2156122 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1816:	learn: 0.1120280	test: 0.2156132 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1817:	learn: 0.1120266	test: 0.2156202 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1818:	learn: 0.1120223	test: 0.2156185 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1819:	learn: 0.1120233	test: 0.2156171 best: 0.2155558 (1699)	total: 1m 38s	remaining: 7m
1820:	learn: 0.1120153	test: 0.2156127 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1821:	learn: 0.1120137	test: 0.2156116 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1822:	learn: 0.1120106	test: 0.2156101 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1823:	learn: 0.1120086	test: 0.2156091 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1824:	learn: 0.1120005	test: 0.2155844 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1825:	learn: 0.1119984	test: 0.2155828 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1826:	learn: 0.1119938	test: 0.2155804 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1827:	learn: 0.1119908	test: 0.2155814 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1828:	learn: 0.1119886	test: 0.2155809 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1829:	learn: 0.1119810	test: 0.2155810 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1830:	learn: 0.1119763	test: 0.2155857 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1831:	learn: 0.1119738	test: 0.2155859 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1832:	learn: 0.1119691	test: 0.2155847 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1833:	learn: 0.1119659	test: 0.2155857 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1834:	learn: 0.1119612	test: 0.2155831 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1835:	learn: 0.1119582	test: 0.2155842 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1836:	learn: 0.1119516	test: 0.2155833 best: 0.2155558 (1699)	total: 1m 39s	remaining: 7m
1837:	learn: 0.1119487	test: 0.2155834 best: 0.2155558 (1699)	total: 1m 40s	remaining: 7m
1838:	learn: 0.1119469	test: 0.2155851 best: 0.2155558 (1699)	total: 1m 40s	remaining: 7m
1839:	learn: 0.1119370	test: 0.2155807 best: 0.2155558 (1699)	total: 1m 40s	remaining: 7m
1840:	learn: 0.1119360	test: 0.2155797 best: 0.2155558 (1699)		

3489:	learn:	0.1956373	test:	0.2149444	best:	0.2149311	(3344)	total:	3m 9s	remaining:	6m
3490:	learn:	0.1956350	test:	0.2149445	best:	0.2149311	(3344)	total:	3m 9s	remaining:	6m
75:	learn:	0.1956305	test:	0.2149448	best:	0.2149311	(3344)	total:	3m 9s	remaining:	6m
3492:	learn:	0.1956305	test:	0.2149448	best:	0.2149311	(3344)	total:	3m 9s	remaining:	6m
3493:	learn:	0.1956283	test:	0.2149433	best:	0.2149313	(3344)	total:	3m 9s	remaining:	6m
3494:	learn:	0.1956266	test:	0.2149427	best:	0.2149311	(3344)	total:	3m 9s	remaining:	6m
3495:	learn:	0.1956224	test:	0.2149361	best:	0.2149313	(3344)	total:	3m 9s	remaining:	6m
3496:	learn:	0.1956193	test:	0.2149361	best:	0.2149311	(3344)	total:	3m 9s	remaining:	6m
3497:	learn:	0.1956122	test:	0.2149384	best:	0.2149311	(3344)	total:	3m 9s	remaining:	6m
3498:	learn:	0.1956094	test:	0.2149361	best:	0.2149313	(3344)	total:	3m 9s	remaining:	6m
3499:	learn:	0.1956094	test:	0.2149362	best:	0.2149311	(3344)	total:	3m 9s	remaining:	6m
3491:	learn:	0.1956064	test:	0.2149352	best:	0.2149313	(3344)	total:	3m 10s	remaining:	6m
3411:	learn:	0.1956060	test:	0.2149350	best:	0.2149311	(3344)	total:	3m 10s	remaining:	6m
753:	learn:	0.1955943	test:	0.2149195	best:	0.2149195	(3412)	total:	3m 10s	remaining:	6m
3413:	learn:	0.1955894	test:	0.2149196	best:	0.2149195	(3412)	total:	3m 10s	remaining:	6m
653:	learn:	0.1955884	test:	0.2149205	best:	0.2149195	(3412)	total:	3m 10s	remaining:	6m
65:	learn:	0.1955845	test:	0.2149187	best:	0.2149187	(3415)	total:	3m 10s	remaining:	6m
3415:	learn:	0.1955792	test:	0.2149184	best:	0.2149184	(3416)	total:	3m 10s	remaining:	6m
3417:	learn:	0.1955762	test:	0.2149214	best:	0.2149184	(3416)	total:	3m 10s	remaining:	6m
3418:	learn:	0.1955696	test:	0.2149193	best:	0.2149184	(3416)	total:	3m 10s	remaining:	6m
3419:	learn:	0.1955666	test:	0.2149148	best:	0.2148149	(3419)	total:	3m 10s	remaining:	6m
3420:	learn:	0.1955623	test:	0.2149117	best:	0.2149117	(3420)	total:	3m 10s	remaining:	6m
3421:	learn:	0.1955623	test:	0.2149134	best:	0.2149117	(3420)	total:	3m 10s	remaining:	6m
3422:	learn:	0.1955606	test:	0.2149135	best:	0.2149117	(3420)	total:	3m 10s	remaining:	6m
3423:	learn:	0.1955538	test:	0.2149145	best:	0.2149117	(3420)	total:	3m 10s	remaining:	6m
3424:	learn:	0.1955474	test:	0.2149163	best:	0.2149117	(3420)	total:	3m 10s	remaining:	6m
3425:	learn:	0.1955437	test:	0.2149168	best:	0.2149117	(3420)	total:	3m 10s	remaining:	6m
3426:	learn:	0.1955423	test:	0.2149189	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3427:	learn:	0.1955378	test:	0.2149176	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3428:	learn:	0.1955366	test:	0.2149172	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3429:	learn:	0.1955320	test:	0.2149171	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3430:	learn:	0.1955386	test:	0.2149173	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3431:	learn:	0.1955288	test:	0.2149171	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3432:	learn:	0.1955257	test:	0.2149166	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3433:	learn:	0.1955190	test:	0.2149135	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3434:	learn:	0.1955166	test:	0.2149137	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3435:	learn:	0.1955151	test:	0.2149147	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
553:	learn:	0.1955137	test:	0.2149201	best:	0.2149119	(3420)	total:	3m 11s	remaining:	6m
3437:	learn:	0.1955094	test:	0.2149227	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3438:	learn:	0.1955075	test:	0.2149232	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3439:	learn:	0.1955025	test:	0.2149247	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3440:	learn:	0.1955014	test:	0.2149244	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
554:	learn:	0.1954992	test:	0.2149237	best:	0.2149119	(3420)	total:	3m 11s	remaining:	6m
3442:	learn:	0.1954981	test:	0.2149248	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3443:	learn:	0.1954965	test:	0.2149251	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3444:	learn:	0.1954886	test:	0.2149273	best:	0.2149117	(3420)	total:	3m 11s	remaining:	6m
3445:	learn:	0.1954854	test:	0.2149255	best:	0.2149117	(3420)	total:	3m 12s	remaining:	6m
555:	learn:	0.1954809	test:	0.2149188	best:	0.2149119	(3420)	total:	3m 12s	remaining:	6m
3447:	learn:	0.1954769	test:	0.2149194	best:	0.2149117	(3420)	total:	3m 12s	remaining:	6m
3448:	learn:	0.1954732	test:	0.2149196	best:	0.2149117	(3420)	total:	3m 12s	remaining:	6m
3449:	learn:	0.1954724	test:	0.2149160	best:	0.2149117	(3420)	total:	3m 12s	remaining:	6m
3450:	learn:	0.1954704	test:	0.2149105	best:	0.2149117	(3420)	total:	3m 12s	remaining:	6m
3451:	learn:	0.1954694	test:	0.2149174	best:	0.2149117	(3420)	total:	3m 12s	remaining:	6m
3452:	learn:	0.1954573	test:	0.2149180	best:	0.2149117	(3420)	total:	3m 12s	remaining:	6m
3453:	learn:	0.1954532	test:	0.2149187	best:	0.2149117	(3420)	total:	3m 12s	remaining:	6m
3454:	learn:	0.1954486	test:	0.2149193	best:	0.2149117	(3420)	total:	3m 12s	remaining:	6m
3455:	learn:	0.1954386	test:	0.2149178	best:	0.2149117	(3420)	total:	3m 12s	remaining:	6m
556:	learn:	0.1954302	test:	0.2149176	best:	0.2149117	(3420)	total:	3m 12s	remaining:	6m
3457:	learn:	0.1954284	test:	0.2149171	best:	0.2149117	(3420)	total:	3m 12s	remaining:	6m
3458:	learn:	0.1954244	test:	0.2149175	best:	0.2149117	(3420)	total:	3m 12s	remaining:	6m
45:	learn:	0.1954218	test:	0.2149174	best:	0.2149117	(3420)	total:	3m 13s	remaining:	6m
3459:	learn:	0.1954183	test:	0.2149183	best:	0.2149117	(3420)	total:	3m 13s	remaining:	6m
3460:	learn:	0.1954181	test:	0.2149184	best:	0.2149117	(3420)	total:	3m 13s	remaining:	6m
3461:	learn:	0.1954182	test:	0.2149185	best:	0.2149117	(3420)	total:	3m 13s	remaining:	6m
3462:	learn:	0.1954157	test:	0.2149199	best:	0.2149117	(3420)	total:	3m 13s	remaining:	6m
3463:	learn:	0.1954088	test:	0.2149063	best:	0.2149063	(3463)	total:	3m 13s	remaining:	6m
3464:	learn:	0.1954015	test:	0.2149024	best:	0.2149024	(3464)	total:	3m 13s	remaining:	6m
3465:	learn:	0.1954004	test:	0.2149032	best:	0.2149024	(3464)	total:	3m 13s	remaining:	6m
3466:	learn:	0.1953975	test:	0.2149021	best:	0.2149024	(3464)	total:	3m 13s	remaining:	6m
3467:	learn:	0.1953914	test:	0.2149028	best:	0.2149024	(3464)	total:	3m 13s	remaining:	6m
3468:	learn:	0.1953916	test:	0.2149029	best:	0.2149024	(3464)	total:	3m 13s	remaining:	6m
3469:	learn:	0.1953884	test:	0.2149029	best:	0.2149024	(3464)	total:	3m 13s	remaining:	6m
3470:	learn:	0.1953846	test:	0.2149012	best:	0.2149012	(3471)	total:	3m 13s	remaining:	6m
3471:	learn:	0.1953826	test:	0.2149001	best:	0.2149001	(3471)	total:	3m 13s	remaining:	6m
3472:	learn:	0.1953783	test:	0.2149008	best:	0.2149001	(3471)	total:	3m 13s	remaining:	6m
453:	learn:	0.1953744	test:	0.2149032	best:	0.2149001	(3471)	total:	3m 13s	remaining:	6m
3474:	learn:	0.1953683	test:	0.2149051	best:	0.2149001	(3471)	total:	3m 14s	remaining:	6m
3475:	learn:	0.1953610	test:	0.2149014	best:	0.2149001	(3471)	total:	3m 14s	remaining:	6m
3476:	learn:	0.1953561	test:	0.2149004	best:	0.2149001	(3471)	total:	3m 14s	remaining:	6m
3477:	learn:	0.1953547	test:	0.2149053	best:	0.2149001	(3471)	total:	3m 14s	remaining:	6m
3478:	learn:	0.1953491	test:	0.2149010	best:	0.2149001	(3471)	total:	3m 14s	remaining:	6m
3479:	learn:	0.1953432	test:	0.2149001	best:	0.2149001	(3479)	total:	3m 14s	remaining:	6m
3480:	learn:	0.1953378	test:	0.2148940	best:	0.2148940	(3480)	total:	3m 14s	remaining:	6m
3481:	learn:	0.1953352	test:	0.2148934	best:	0.2148934	(3481)	total:	3m 14s	remaining:	6m
3482:	learn:	0.1953290	test:	0.2148971	best:	0.2148934	(3481)	total:	3m 14s	remaining:	6m
38:	learn:	0.1953270	test:	0.2148963	best:	0.2148934	(3481)	total:	3m 14s	remaining:	6m
3484:	learn:	0.1953252	test:	0.2148966	best:	0.2148934	(3481)	total:	3m 14s	remaining:	6m
3485:	learn:	0.1953231	test:	0.2148984	best:	0.2148934	(3481)	total:	3m 14s	remaining:	6m
3486:	learn:	0.1953131	test:	0.2148974	best:	0.2148934	(3481)	total:	3m 14s	remaining:	6m
3487:	learn:	0.1953088	test:	0.2148971	best:	0.2148934	(3481)	total:	3m 14s	remaining:	6m
3488:	learn:	0.1953041	test:	0.2148959	best:	0.2148934	(3481)	total:	3m 14s	remaining:	6m
3489:	learn:	0.1953015	test:	0.2148968	best:	0.2148934	(3481)	total:	3m 14s	remaining:	6m
3490:	learn:	0.1953002	test:	0.2148940	best:	0.2148934	(3481)	total:	3m 15s	remaining:	6m
3491:	learn:	0.1952990	test:	0.2148941	best:	0.2148934	(3481)	total:	3m 15s	remaining:	6m
3492:	learn:	0.1952941	test:	0.2148938	best:	0.2148934	(3481)	total:	3m 15s	remaining:	6m
35:	learn:	0.1952988	test:	0.2148927	best:	0.2148927	(3493)	total:	3m 15s	remaining:	6m
3494:	learn:	0.1952856	test:	0.2148913	best:	0.2148927	(3493)	total:	3m 15s	remaining:	6m
3495:	learn:	0.1952848	test:	0.2148923	best:	0.2148913	(3495)	total:	3m 15s	remaining:	6m
3496:	learn:	0.1952823	test:	0.2148932	best:	0.2148913	(3495)	total:	3m 15s	remaining:	6m
3497:	learn:	0.1952798	test:	0.2148926	best:	0.2148913	(3495)	total:	3m 15s	remaining:	6m
3498:	learn:	0.1952767	test:	0.2148967	best:	0.2148913	(3495)	total:	3m 15s	remaining:	6m
3499:	learn:	0.1952714	test:	0.2148948	best:	0.2148913	(3495)	total:	3m 15s	remaining:	6m
3500:	learn:	0.1952657	test:	0.2148962	best:	0.2148913	(3495)	total:	3m 15s	remaining:	6m
3501:	learn:	0.1952653	test:	0.2149004	best:	0.2148913	(3495)	total:	3m 15s	remaining:	6m
3502:	learn:	0.1952619	test:	0.2148945	best:	0.2148913	(3495)	total:	3m 15s	remaining:	6m
3503:	learn:	0.1952579	test:	0.2149036	best:	0.2148913	(3495)	total:	3m 15s	remaining:	6m
3504:	learn:	0.1952552	test:	0.2149023	best:	0.2148913	(3495)	total:	3m 15s	remaining:	6m
3505:	learn:	0.1952531	test:	0.2149022	best:	0.2148913	(3495)	total:	3m 16s	remaining:	6m
3506:	learn:	0.1952517	test:	0.2148985	best:	0.2148913	(3495)	total:	3m 16s	remaining:	6m
3507:	learn:	0.1952493	test:	0.2149034	best:	0.2148913	(3495)	total:	3m 16s	remaining:	6m
3508:	learn:	0.1952427	test:	0.2148962	best:	0.2148913	(3495)	total:	3m		

4688:	learn:	0.1012483	test:	0.2146651	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4689:	learn:	0.1012433	test:	0.2146653	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4690:	learn:	0.1012416	test:	0.2146662	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4691:	learn:	0.1012387	test:	0.2145987	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4692:	learn:	0.1012378	test:	0.2145987	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4693:	learn:	0.1012341	test:	0.2146651	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4694:	learn:	0.1012394	test:	0.2146676	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4695:	learn:	0.1012291	test:	0.2146639	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4696:	learn:	0.1012248	test:	0.2146637	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4697:	learn:	0.1012234	test:	0.2146637	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4698:	learn:	0.1012287	test:	0.2145964	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4699:	learn:	0.1012185	test:	0.2145959	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4700:	learn:	0.1012174	test:	0.2145959	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4701:	learn:	0.1012155	test:	0.2145954	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4702:	learn:	0.1012144	test:	0.2145926	best:	0.2145892	(4459)	total:	4m 30s	remaining:	5m
4703:	learn:	0.1012054	test:	0.2145989	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4704:	learn:	0.1012013	test:	0.2145976	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4705:	learn:	0.1012065	test:	0.2146609	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4706:	learn:	0.1011945	test:	0.2146637	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4707:	learn:	0.1011929	test:	0.2146640	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4708:	learn:	0.1011922	test:	0.2146639	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4709:	learn:	0.1011887	test:	0.2145998	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4710:	learn:	0.1011839	test:	0.2146649	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4711:	learn:	0.1011839	test:	0.2146619	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4712:	learn:	0.1011787	test:	0.2146611	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4713:	learn:	0.1011771	test:	0.2145961	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4714:	learn:	0.1011719	test:	0.2145991	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4715:	learn:	0.1011694	test:	0.2145945	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4716:	learn:	0.1011677	test:	0.2145951	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4717:	learn:	0.1011687	test:	0.2145943	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4718:	learn:	0.1011658	test:	0.2145974	best:	0.2145892	(4459)	total:	4m 31s	remaining:	5m
4719:	learn:	0.1011611	test:	0.2146644	best:	0.2145892	(4459)	total:	4m 32s	remaining:	5m
4720:	learn:	0.1011578	test:	0.2146688	best:	0.2145892	(4459)	total:	4m 32s	remaining:	5m
4721:	learn:	0.1011541	test:	0.2146679	best:	0.2145892	(4459)	total:	4m 32s	remaining:	5m
4722:	learn:	0.1011542	test:	0.2146682	best:	0.2145892	(4459)	total:	4m 32s	remaining:	5m
4723:	learn:	0.1011569	test:	0.2146683	best:	0.2145892	(4459)	total:	4m 32s	remaining:	5m
4724:	learn:	0.1011472	test:	0.2146654	best:	0.2					

learn:	0.954230	test:	0.245932	best:	0.245365	(6687)	total:	6m	52s	remaining:
learn:	0.954226	test:	0.245932	best:	0.245365	(6687)	total:	6m	52s	remaining:
learn:	0.954197	test:	0.245936	best:	0.245365	(6687)	total:	6m	52s	remaining:
learn:	0.954172	test:	0.245957	best:	0.245365	(6687)	total:	6m	53s	remaining:
learn:	0.954152	test:	0.245948	best:	0.245365	(6687)	total:	6m	53s	remaining:
learn:	0.954123	test:	0.245921	best:	0.245365	(6687)	total:	6m	53s	remaining:
learn:	0.954083	test:	0.245936	best:	0.245365	(6687)	total:	6m	53s	remaining:
learn:	0.954058	test:	0.245934	best:	0.245365	(6687)	total:	6m	53s	remaining:
learn:	0.954052	test:	0.245935	best:	0.245365	(6687)	total:	6m	53s	remaining:
learn:	0.954022	test:	0.245916	best:	0.245365	(6687)	total:	6m	53s	remaining:
learn:	0.954009	test:	0.245999	best:	0.245365	(6687)	total:	6m	53s	remaining:
learn:	0.953989	test:	0.245987	best:	0.245365	(6687)	total:	6m	53s	remaining:
learn:	0.953932	test:	0.245973	best:	0.245365	(6687)	total:	6m	53s	remaining:
learn:	0.953899	test:	0.245981	best:	0.245365	(6687)	total:	6m	53s	remaining:
learn:	0.953886	test:	0.245978	best:	0.245365	(6687)	total:	6m	54s	remaining:
learn:	0.953854	test:	0.245981	best:	0.245365	(6687)	total:	6m	54s	remaining:
learn:	0.953819	test:	0.245980	best:	0.245365	(6687)	total:	6m	54s	remaining:
learn:	0.953795	test:	0.245972	best:	0.245365	(6687)	total:	6m	54s	remaining:
learn:	0.953756	test:	0.245986	best:	0.245365	(6687)	total:	6m	54s	remaining:
learn:	0.953722	test:	0.245983	best:	0.245365	(6687)	total:	6m	54s	remaining:
learn:	0.953705	test:	0.245978	best:	0.245365	(6687)	total:	6m	54s	remaining:
learn:	0.953684	test:	0.245978	best:	0.245365	(6687)	total:	6m	54s	remaining:
learn:	0.953638	test:	0.246015	best:	0.245365	(6687)	total:	6m	54s	remaining:
learn:	0.953597	test:	0.245993	best:	0.245365	(6687)	total:	6m	54s	remaining:
learn:	0.953580	test:	0.246019	best:	0.245365	(6687)	total:	6m	54s	remaining:
learn:	0.953567	test:	0.246018	best:	0.245365	(6687)	total:	6m	55s	remaining:
learn:	0.953532	test:	0.246079	best:	0.245365	(6687)	total:	6m	55s	remaining:
learn:	0.953478	test:	0.246088	best:	0.245365	(6687)	total:	6m	55s	remaining:
learn:	0.953459	test:	0.246129	best:	0.245365	(6687)	total:	6m	55s	remaining:
learn:	0.953431	test:	0.246136	best:	0.245365	(6687)	total:	6m	55s	remaining:
learn:	0.953392	test:	0.246127	best:	0.245365	(6687)	total:	6m	55s	remaining:
learn:	0.953375	test:	0.246186	best:	0.245365	(6687)	total:	6m	55s	remaining:
learn:	0.953353	test:	0.246122	best:	0.245365	(6687)	total:	6m	55s	remaining:
learn:	0.953328	test:	0.246171	best:	0.245365	(6687)	total:	6m	55s	remaining:
learn:	0.953285	test:	0.246097	best:	0.245365	(6687)	total:	6m	55s	remaining:
learn:	0.953271	test:	0.246066	best:	0.245365	(6687)	total:	6m	55s	remaining:
learn:	0.953248	test:	0.246110	best:	0.245365	(6687)	total:	6m	56s	remaining:
learn:	0.953219	test:	0.246055	best:	0.245365	(6687)	total:	6m	56s	remaining:
learn:	0.953207	test:	0.246122	best:	0.245365	(6687)	total:	6m	56s	remaining:
learn:	0.953184	test:	0.246136	best:	0.245365	(6687)	total:	6m	56s	remaining:
learn:	0.953166	test:	0.246130	best:	0.245365	(6687)	total:	6m	56s	remaining:
learn:	0.953149	test:	0.246176	best:	0.245365	(6687)	total:	6m	56s	remaining:
learn:	0.953127									

8180:	learn:	0.0923556	test:	0.2147572	best:	0.2145365	(6667)	total:	8m 25s	remaining:	1m
8181:	learn:	0.0923556	test:	0.2147571	best:	0.2145365	(6667)	total:	8m 25s	remaining:	1m
589:	learn:	0.0923565	test:	0.2147572	best:	0.2145365	(6667)	total:	8m 25s	remaining:	1m
589:	learn:	0.0923565	test:	0.2147586	best:	0.2145365	(6667)	total:	8m 25s	remaining:	1m
579:	learn:	0.0923463	test:	0.2147586	best:	0.2145365	(6667)	total:	8m 25s	remaining:	1m
8119:	learn:	0.0923456	test:	0.2147685	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
8111:	learn:	0.0923433	test:	0.2147639	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
579:	learn:	0.0923426	test:	0.2147636	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
8119:	learn:	0.0923376	test:	0.2147636	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
579:	learn:	0.0923374	test:	0.2147642	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
8115:	learn:	0.0923361	test:	0.2147651	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
8119:	learn:	0.0923346	test:	0.2147782	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
8117:	learn:	0.0923322	test:	0.2147698	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
8118:	learn:	0.0923309	test:	0.2147679	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
579:	learn:	0.0923305	test:	0.2147679	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
8120:	learn:	0.0923297	test:	0.2147690	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
579:	learn:	0.0923284	test:	0.2147689	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
8122:	learn:	0.0923280	test:	0.2147679	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
8123:	learn:	0.0923243	test:	0.2147684	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
579:	learn:	0.0923216	test:	0.2147658	best:	0.2145365	(6667)	total:	8m 26s	remaining:	1m
8125:	learn:	0.0923192	test:	0.2147656	best:	0.2145365	(6667)	total:	8m 27s	remaining:	1m
569:	learn:	0.0923132	test:	0.2147653	best:	0.2145365	(6667)	total:	8m 27s	remaining:	1m
8127:	learn:	0.0923124	test:	0.2147658	best:	0.2145365	(6667)	total:	8m 27s	remaining:	1m
8128:	learn:	0.0923118	test:	0.2147655	best:	0.2145365	(6667)	total:	8m 27s	remaining:	1m
569:	learn:	0.0923093	test:	0.2147669	best:	0.2145365	(6667)	total:	8m 27s	remaining:	1m
8129:	learn:	0.0923083	test:	0.2147653	best:	0.2145365	(6667)	total:	8m 27s	remaining:	1m
569:	learn:	0.0923085	test:	0.2147656	best:	0.2145365	(6667)	total:	8m 27s	remaining:	1m
8132:	learn:	0.0923081	test:	0.2147654	best:	0.2145365	(6667)	total:	8m 27s	remaining:	1m
8133:	learn:	0.0923059	test:	0.2147653	best:	0.2145365	(6667)	total:	8m 27s	remaining:	1m
8135:	learn:	0.0923063	test:	0.2147659	best:	0.2145365	(6667)	total:	8m 27s	remaining:	1m
569:	learn:	0.0923031	test:	0.2147657	best:	0.2145365	(6667)	total:	8m 27s	remaining:	1m
8137:	learn:	0.0922982	test:	0.2147653	best:	0.2145365	(6667)	total:	8m 27s	remaining:	1m
8139:	learn:	0.0922966	test:	0.2147646	best:	0.2145365	(6667)	total:	8m 28s	remaining:	1m
569:	learn:	0.0922957	test:	0.2147666	best:	0.2145365	(6667)	total:	8m 28s	remaining:	1m
569:	learn:	0.0922913	test:	0.2147672	best:	0.2145365	(6667)	total:	8m 28s	remaining:	1m
8142:	learn:	0.0922895	test:	0.2147675	best:	0.2145365	(6667)	total:	8m 28s	remaining:	1m
569:	learn:	0.0922879	test:	0.2147672	best:	0.2145365	(6667)	total:	8m 28s	remaining:	1m
8145:	learn:	0.0922866	test:	0.2147698	best:	0.2145365	(6667)	total:	8m 28s	remaining:	1m
8146:	learn:	0.0922832	test:	0.2147750	best:	0.2145365	(6667)	total:	8m 28s	remaining:	1m
569:	learn:	0.0922817	test:	0.2147747	best:	0.2145365	(6667)	total:	8m 28s	remaining:	1m
8147:	learn:	0.0922785	test:	0.2147749	best:	0.2145365	(6667)	total:	8m 28s	remaining:	1m
569:	learn:	0.0922761	test:	0.2147754	best:	0.2145365	(6667)	total:	8m 28s	remaining:	1m
8149:	learn:	0.0922722	test:	0.2147757	best:	0.2145365	(6667)	total:	8m 29s	remaining:	1m
569:	learn:	0.0922706	test:	0.2147759	best:	0.2145365	(6667)	total:	8m 29s	remaining:	1m
8151:	learn:	0.0922706	test:	0.2147764	best:	0.2145365	(6667)	total:	8m 29s	remaining:	1m
8152:	learn:	0.0922698	test:	0.2147773	best:	0.2145365	(6667)	total:	8m 29s	remaining:	1m
569:	learn:	0.0922668	test:	0.2147772	best:	0.2145365	(6667)	total:	8m 29s	remaining:	1m
8154:	learn:	0.0922667	test:	0.2147773	best:	0.2145365	(6667)	total:	8m 29s	remaining:	1m
8157:	learn:	0.0922668	test:	0.2147773	best:	0.2145365	(6667)	total:	8m 29s	remaining:	1m
8158:	learn:	0.0922628	test:	0.2147783	best:	0.2145365	(6667)	total:	8m 29s	remaining:	1m
549:	learn:	0.0922583	test:	0.2147823	best:	0.2145365	(6667)	total:	8m 29s	remaining:	1m
8159:	learn:	0.0922544	test:	0.2147816	best:	0.2145365	(6667)	total:	8m 29s	remaining:	1m
8160:	learn:	0.0922524	test:	0.2147816	best:	0.2145365	(6667)	total:	8m 29s	remaining:	1m
549:	learn:	0.0922507	test:	0.2147827	best:	0.2145365	(6667)	total:	8m 29s	remaining:	1m
8162:	learn:	0.0922444	test:	0.2147831	best:	0.2145365	(6667)	total:	8m 29s	remaining:	1m
549:	learn:	0.0922396	test:	0.2147831	best:	0.2145365	(6667)	total:	8m 29s	remaining:	1m
8163:	learn:	0.0922346	test:	0.2147779	best:	0.2145365	(6667)	total:	8m 30s	remaining:	1m
549:	learn:	0.0922283	test:	0.2147764	best:	0.2145365	(6667)	total:	8m 30s	remaining:	1m
8169:	learn:	0.0922245	test:	0.2147759	best:	0.2145365	(6667)	total:	8m 30s	remaining:	1m
8170:	learn:	0.0922225	test:	0.2147765	best:	0.2145365	(6667)	total:	8m 30s	remaining:	1m
8171:	learn:	0.0922187	test:	0.2147742	best:	0.2145365	(6667)	total:	8m 30s	remaining:	1m
549:	learn:	0.0922169	test:	0.2147738	best:	0.2145365	(6667)	total:	8m 30s	remaining:	1m
8174:	learn:	0.0922082	test:	0.2147754	best:	0.2145365	(6667)	total:	8m 30s	remaining:	1m
539:	learn:	0.0922034	test:	0.2147736	best:	0.2145365	(6667)	total:	8m 30s	remaining:	1m
8176:	learn:	0.0922015	test:	0.2147733	best:	0.2145365	(6667)	total:	8m 30s	remaining:	1m
8177:	learn:	0.0922005	test:	0.2147737	best:	0.2145365	(6667)	total:	8m 30s	remaining:	1m
539:	learn:	0.0922006	test:	0.2147737	best:	0.2145365	(6667)	total:	8m 30s	remaining:	1m
8179:	learn:	0.0921957	test:	0.2147743	best:	0.2145365	(6667)	total:	8m 31s	remaining:	1m
8180:	learn:	0.0921939	test:	0.2147773	best:	0.2145365	(6667)	total:	8m 31s	remaining:	1m
539:	learn:	0.0921905	test:	0.2147783	best:	0.2145365	(6667)	total:	8m 31s	remaining:	1m
8184:	learn:	0.0921885	test:	0.2147784	best:	0.2145365	(6667)	total:	8m 31s	remaining:	1m
539:	learn:	0.0921868	test:	0.2147784	best:	0.2145365	(6667)	total:	8m 31s	remaining:	1m
8186:	learn:	0.0921853	test:	0.2147784	best:	0.2145365	(6667)	total:	8m 31s	remaining:	1m
8187:	learn:	0.0921822	test:	0.2147789	best:	0.2145365	(6667)	total:	8m 31s	remaining:	1m
539:	learn:	0.0921798	test:	0.2147792	best:	0.2145365	(6667)	total:	8m 31s	remaining:	1m
8189:	learn:	0.0921787	test:	0.2147804	best:	0.2145365	(6667)	total:	8m 31s	remaining:	1m
539:	learn:	0.0921748	test:	0.2147800	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
8192:	learn:	0.0921747	test:	0.2147801	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
529:	learn:	0.0921719	test:	0.2147792	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
8194:	learn:	0.0921684	test:	0.2147792	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
529:	learn:	0.0921654	test:	0.2147805	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
8196:	learn:	0.0921644	test:	0.2147802	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
529:	learn:	0.0921637	test:	0.2147787	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
8198:	learn:	0.0921620	test:	0.2147786	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
529:	learn:	0.0921603	test:	0.2147781	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
8199:	learn:	0.0921565	test:	0.2147808	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
529:	learn:	0.0921562	test:	0.2147815	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
8200:	learn:	0.0921525	test:	0.2147860	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
8201:	learn:	0.0921515	test:	0.2147867	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
529:	learn:	0.0921495	test:	0.2147905	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
8206:	learn:	0.0921441	test:	0.2147916	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
529:	learn:	0.0921417	test:	0.2147907	best:	0.2145365	(6667)	total:	8m 32s	remaining:	1m
8208:	learn:	0.0921399	test:	0.2147917	best:	0.2145365	(6667)	total:	8m 33s	remaining:	1m
529:	learn:	0.0921376	test:	0.2147909	best:	0.2145365	(6667)	total:	8m 33s	remaining:	1m
8211:	learn:	0.0921348	test:	0.2147915	best:	0.2145365	(6667)	total:	8m 33s	remaining:	1m
519:	learn:	0.0921305	test:	0.2147883	best:	0.2145365	(6667)	total:	8m 33s	remaining:	1m
8213:	learn:	0.0921272	test:	0.2147884	best:	0.2145365	(6667)	total:	8m 33s	remaining:	1m
519:	learn:	0.0921239	test:	0.2147883	best:	0.2145365	(6667)	total:	8m 33s	remaining:	1m
8214:	learn:	0.0921218	test:	0.2147878	best:	0.2145365	(6667)	total:	8m 33s	remaining:	1m
519:	learn:	0.0921204	test:	0.2147881	best:	0.2145365	(6667)	total:	8m 33s	remaining:	1m
8216:	learn:	0.0921174	test:	0.2147891	best:	0.2145365	(6667)	total:	8m 33s	remaining:	1m
519:	learn:	0.0921134	test:	0.2147925	best:	0.2145365	(6667)	total:	8m 33s	remaining:	1m
8218:	learn:	0.0921101	test:	0.2147917	best:	0.2145365	(6667)	total:	8m 34s	remaining:	1m
519:	learn:	0.0921055	test:	0.2147929	best:	0.2145365	(6667)	total:	8m 34s	remaining:	1m
8221:	learn:	0.0921044	test:	0.2147867	best:	0.2145365	(6667)	total:	8m 34s	remaining:	1m
519:	learn:	0.0921025	test:	0.2147890	best:	0.2145365	(6667)	total:	8m 34s	remaining:	1m
8223:	learn:	0.0921000	test:	0.2147877	best:	0.2145365	(6667)	total:	8m 34s	remaining:	1m
509:	learn:	0.0920980	test:	0.2147879	best:	0.2145365	(6667)	total:	8m 34s	remaining:	1m
8226:	learn:	0.0920954	test:	0.2147873	best:	0.2145365	(6667)	total:	8m 34s	remaining:	1m
509:	learn:	0.0920931	test:	0.2147911	best:	0.2145365	(6667)	total:	8m 34s	remaining:	1m
8228:	learn:	0.0920903	test:	0.2147912	best:	0.2145365	(6667)	total:	8m 34s	remaining:	1m</

8528:	learn:	0.0914536	test:	0.2147936	best:	0.2145365	(6667)	total:	8m 57s	remaining:	1m
8529:	learn:	0.0914536	test:	0.2147936	best:	0.2145365	(6667)	total:	8m 57s	remaining:	1m
325:	learn:	0.0914494	test:	0.2147934	best:	0.2145365	(6667)	total:	8m 57s	remaining:	1m
8530:	learn:	0.0914494	test:	0.2147934	best:	0.2145365	(6667)	total:	8m 57s	remaining:	1m
8531:	learn:	0.0914484	test:	0.2147931	best:	0.2145365	(6667)	total:	8m 57s	remaining:	1m
325:	learn:	0.0914484	test:	0.2147931	best:	0.2145365	(6667)	total:	8m 57s	remaining:	1m
8532:	learn:	0.0914484	test:	0.2147931	best:	0.2145365	(6667)	total:	8m 57s	remaining:	1m
8533:	learn:	0.0914408	test:	0.2147929	best:	0.2145365	(6667)	total:	8m 57s	remaining:	1m
325:	learn:	0.0914393	test:	0.2147925	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8534:	learn:	0.0914385	test:	0.2147926	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8535:	learn:	0.0914385	test:	0.2147926	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8536:	learn:	0.0914353	test:	0.2147938	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
325:	learn:	0.0914343	test:	0.2147937	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8537:	learn:	0.0914343	test:	0.2147937	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8538:	learn:	0.0914323	test:	0.2147960	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
325:	learn:	0.0914295	test:	0.2147963	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8539:	learn:	0.0914275	test:	0.2147979	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8540:	learn:	0.0914275	test:	0.2147979	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8541:	learn:	0.0914273	test:	0.2147986	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
315:	learn:	0.0914255	test:	0.2147981	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8542:	learn:	0.0914255	test:	0.2147981	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8543:	learn:	0.0914215	test:	0.2147983	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
315:	learn:	0.0914185	test:	0.2147941	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8544:	learn:	0.0914182	test:	0.2147959	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8545:	learn:	0.0914162	test:	0.2147959	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8546:	learn:	0.0914102	test:	0.2147959	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
315:	learn:	0.0914098	test:	0.2147973	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8547:	learn:	0.0914078	test:	0.2147973	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8548:	learn:	0.0914078	test:	0.2147973	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
315:	learn:	0.0914050	test:	0.2147989	best:	0.2145365	(6667)	total:	8m 58s	remaining:	1m
8549:	learn:	0.0914026	test:	0.2147983	best:	0.2145365	(6667)	total:	8m 59s	remaining:	1m
8550:	learn:	0.0914026	test:	0.2147983	best:	0.2145365	(6667)	total:	8m 59s	remaining:	1m
8551:	learn:	0.0913996	test:	0.2147968	best:	0.2145365	(6667)	total:	8m 59s	remaining:	1m
315:	learn:	0.0913997	test:	0.2147968	best:	0.2145365	(6667)	total:	8m 59s	remaining:	1m
8552:	learn:	0.0913997	test:	0.2147968	best:	0.2145365	(6667)	total:	8m 59s	remaining:	1m
8553:	learn:	0.0913975	test:	0.2147981	best:	0.2145365	(6667)	total:	8m 59s	remaining:	1m
315:	learn:	0.0913966	test:	0.2147938	best:	0.2145365	(

9521:	learn:	0.9905318	test:	0.2145361	best:	0.2145365	(6667)	total:	9m 29s	remaining:	1m
9522:	learn:	0.9905299	test:	0.2148312	best:	0.2145365	(6667)	total:	9m 29s	remaining:	1m
65:	learn:	0.9905279	test:	0.2148321	best:	0.2145365	(6667)	total:	9m 29s	remaining:	1m
9531:	learn:	0.9905266	test:	0.2148328	best:	0.2145365	(6667)	total:	9m 29s	remaining:	1m
9532:	learn:	0.9905266	test:	0.2148328	best:	0.2145365	(6667)	total:	9m 29s	remaining:	1m
9533:	learn:	0.9905239	test:	0.2148274	best:	0.2145365	(6667)	total:	9m 29s	remaining:	1m
9534:	learn:	0.9905214	test:	0.2148241	best:	0.2145365	(6667)	total:	9m 29s	remaining:	1m
9535:	learn:	0.9905183	test:	0.2148228	best:	0.2145365	(6667)	total:	9m 29s	remaining:	1m
9536:	learn:	0.9905172	test:	0.2148251	best:	0.2145365	(6667)	total:	9m 29s	remaining:	1m
9537:	learn:	0.9905161	test:	0.2148251	best:	0.2145365	(6667)	total:	9m 29s	remaining:	1m
9538:	learn:	0.9905086	test:	0.2148245	best:	0.2145365	(6667)	total:	9m 29s	remaining:	1m
9539:	learn:	0.9905083	test:	0.2148249	best:	0.2145365	(6667)	total:	9m 30s	remaining:	1m
9540:	learn:	0.9905072	test:	0.2148237	best:	0.2145365	(6667)	total:	9m 30s	remaining:	1m
9541:	learn:	0.9905053	test:	0.2148236	best:	0.2145365	(6667)	total:	9m 30s	remaining:	1m
9542:	learn:	0.9905053	test:	0.2148237	best:	0.2145365	(6667)	total:	9m 30s	remaining:	1m
9543:	learn:	0.9905013	test:	0.2148270	best:	0.2145365	(6667)	total:	9m 30s	remaining:	1m
9544:	learn:	0.9904980	test:	0.2148262	best:	0.2145365	(6667)	total:	9m 30s	remaining:	1m
9545:	learn:	0.9904961	test:	0.2148261	best:	0.2145365	(6667)	total:	9m 30s	remaining:	1m
9546:	learn:	0.9904934	test:	0.2148260	best:	0.2145365	(6667)	total:	9m 30s	remaining:	1m
9547:	learn:	0.9904933	test:	0.2148266	best:	0.2145365	(6667)	total:	9m 30s	remaining:	1m
9548:	learn:	0.9904934	test:	0.2148266	best:	0.2145365	(6667)	total:	9m 30s	remaining:	1m
9549:	learn:	0.9904923	test:	0.2148266	best:	0.2145365	(6667)	total:	9m 30s	remaining:	1m
9550:	learn:	0.9904919	test:	0.2148265	best:	0.2145365	(6667)	total:	9m 30s	remaining:	1m
9551:	learn:	0.9904899	test:	0.2148256	best:	0.2145365	(6667)	total:	9m 31s	remaining:	1m
9552:	learn:	0.9904886	test:	0.2148253	best:	0.2145365	(6667)	total:	9m 31s	remaining:	1m
9553:	learn:	0.9904873	test:	0.2148254	best:	0.2145365	(6667)	total:	9m 31s	remaining:	1m
9554:	learn:	0.9904858	test:	0.2148252	best:	0.2145365	(6667)	total:	9m 31s	remaining:	1m
9555:	learn:	0.9904815	test:	0.2148258	best:	0.2145365	(6667)	total:	9m 31s	remaining:	1m
9556:	learn:	0.9904792	test:	0.2148268	best:	0.2145365	(6667)	total:	9m 31s	remaining:	1m
9557:	learn:	0.9904787	test:	0.2148298	best:	0.2145365	(6667)	total:	9m 31s	remaining:	1m
9558:	learn:	0.9904765	test:	0.2148305	best:	0.2145365	(6667)	total:	9m 31s	remaining:	1m
9559:	learn:	0.9904731	test:	0.2148319	best:	0.2145365	(6667)	total:	9m 31s	remaining:	1m
9560:	learn:	0.9904721	test:	0.2148395	best:	0.2145365	(6667)	total:	9m 31s	remaining:	1m
9561:	learn:	0.9904692	test:	0.2148395	best:	0.2145365	(6667)	total:	9m 31s	remaining:	1m
9562:	learn:	0.9904690	test:	0.2148308	best:	0.2145365	(6667)	total:	9m 32s	remaining:	1m
9563:	learn:	0.9904646	test:	0.2148307	best:	0.2145365	(6667)	total:	9m 32s	remaining:	1m
9564:	learn:	0.9904626	test:	0.2148290	best:	0.2145365	(6667)	total:	9m 32s	remaining:	1m
9565:	learn:	0.9904594	test:	0.2148286	best:	0.2145365	(6667)	total:	9m 32s	remaining:	1m
9566:	learn:	0.9904566	test:	0.2148285	best:	0.2145365	(6667)	total:	9m 32s	remaining:	1m
9567:	learn:	0.9904551	test:	0.2148277	best:	0.2145365	(6667)	total:	9m 32s	remaining:	1m
9568:	learn:	0.9904533	test:	0.2148284	best:	0.2145365	(6667)	total:	9m 32s	remaining:	1m
9569:	learn:	0.9904529	test:	0.2148287	best:	0.2145365	(6667)	total:	9m 32s	remaining:	1m
9570:	learn:	0.9904499	test:	0.2148265	best:	0.2145365	(6667)	total:	9m 32s	remaining:	1m
9571:	learn:	0.9904454	test:	0.2148284	best:	0.2145365	(6667)	total:	9m 32s	remaining:	1m
9572:	learn:	0.9904429	test:	0.2148290	best:	0.2145365	(6667)	total:	9m 32s	remaining:	1m
9573:	learn:	0.9904427	test:	0.2148194	best:	0.2145365	(6667)	total:	9m 33s	remaining:	1m
9574:	learn:	0.9904266	test:	0.2148198	best:	0.2145365	(6667)	total:	9m 33s	remaining:	1m
9575:	learn:	0.9904268	test:	0.2148232	best:	0.2145365	(6667)	total:	9m 33s	remaining:	1m
9576:	learn:	0.9904243	test:	0.2148220	best:	0.2145365	(6667)	total:	9m 33s	remaining:	1m
9577:	learn:	0.9904227	test:	0.2148194	best:	0.2145365	(6667)	total:	9m 33s	remaining:	1m
9578:	learn:	0.9904183	test:	0.2148202	best:	0.2145365	(6667)	total:	9m 33s	remaining:	1m
9579:	learn:	0.9904176	test:	0.2148208	best:	0.2145365	(6667)	total:	9m 33s	remaining:	1m
9580:	learn:	0.9904138	test:	0.2148224	best:	0.2145365	(6667)	total:	9m 33s	remaining:	1m
9581:	learn:	0.9904123	test:	0.2148218	best:	0.2145365	(6667)	total:	9m 33s	remaining:	1m
9582:	learn:	0.9904111	test:	0.2148226	best:	0.2145365	(6667)	total:	9m 34s	remaining:	1m
9583:	learn:	0.9904083	test:	0.2148201	best:	0.2145365	(6667)	total:	9m 34s	remaining:	1m
9584:	learn:	0.9904068	test:	0.2148206	best:	0.2145365	(6667)	total:	9m 34s	remaining:	1m
9585:	learn:	0.9904015	test:	0.2148207	best:	0.2145365	(6667)	total:	9m 34s	remaining:	1m
9586:	learn:	0.9904004	test:	0.2148206	best:	0.2145365	(6667)	total:	9m 34s	remaining:	1m
9587:	learn:	0.9903986	test:	0.2148209	best:	0.2145365	(6667)	total:	9m 34s	remaining:	1m
9588:	learn:	0.9903964	test:	0.2148183	best:	0.2145365	(6667)	total:	9m 34s	remaining:	1m
9589:	learn:	0.9903956	test:	0.2148182	best:	0.2145365	(6667)	total:	9m 34s	remaining:	1m
9590:	learn:	0.9903938	test:	0.2148209	best:	0.2145365	(6667)	total:	9m 34s	remaining:	1m
9591:	learn:	0.9903880	test:	0.2148204	best:	0.2145365	(6667)	total:	9m 34s	remaining:	1m
9592:	learn:	0.9903856	test:	0.2148159	best:	0.2145365	(6667)	total:	9m 34s	remaining:	1m
9593:	learn:	0.9903822	test:	0.2148155	best:	0.2145365	(6667)	total:	9m 34s	remaining:	1m
9594:	learn:	0.9903800	test:	0.2148147	best:	0.2145365	(6667)	total:	9m 34s	remaining:	1m
9595:	learn:	0.9903786	test:	0.2148304	best:	0.2145365	(6667)	total:	9m 34s	remaining:	1m
9596:	learn:	0.9903768	test:	0.2148319	best:	0.2145365	(6667)	total:	9m 35s	remaining:	1m
9597:	learn:	0.9903722	test:	0.2148153	best:	0.2145365	(6667)	total:	9m 35s	remaining:	1m
9598:	learn:	0.9903672	test:	0.2148143	best:	0.2145365	(6667)	total:	9m 35s	remaining:	1m
9599:	learn:	0.9903626	test:	0.2148134	best:	0.2145365	(6667)	total:	9m 35s	remaining:	1m
9600:	learn:	0.9903590	test:	0.2148101	best:	0.2145365	(6667)	total:	9m 35s	remaining:	1m
9601:	learn:	0.9903566	test:	0.2148099	best:	0.2145365	(6667)	total:	9m 35s	remaining:	1m
9602:	learn:	0.9903551	test:	0.2148241	best:	0.2145365	(6667)	total:	9m 35s	remaining:	1m
9603:	learn:	0.9903531	test:	0.2148082	best:	0.2145365	(6667)	total:	9m 35s	remaining:	1m
9604:	learn:	0.9903515	test:	0.2148088	best:	0.2145365	(6667)	total:	9m 35s	remaining:	1m
9605:	learn:	0.9903515	test:	0.2148088	best:	0.2145365	(6667)	total:	9m 35s	remaining:	1m
9606:	learn:	0.9903499	test:	0.2148088	best:	0.2145365	(6667)	total:	9m 35s	remaining:	1m
9607:	learn:	0.9903462	test:	0.2148095	best:	0.2145365	(6667)	total:	9m 35s	remaining:	1m
9608:	learn:	0.9903448	test:	0.2148101	best:	0.2145365	(6667)	total:	9m 36s	remaining:	1m
9609:	learn:	0.9903401	test:	0.2148236	best:	0.2145365	(6667)	total:	9m 36s	remaining:	1m
9610:	learn:	0.9903391	test:	0.2148095	best:	0.2145365	(6667)	total:	9m 36s	remaining:	1m
9611:	learn:	0.9903372	test:	0.2148105	best:	0.2145365	(6667)	total:	9m 36s	remaining:	1m
9612:	learn:	0.9903355	test:	0.2148105	best:	0.2145365	(6667)	total:	9m 36s	remaining:	1m
9613:	learn:	0.9903334	test:	0.2148109	best:	0.2145365	(6667)	total:	9m 36s	remaining:	1m
9614:	learn:	0.9903296	test:	0.2148121	best:	0.2145365	(6667)	total:	9m 37s	remaining:	1m
9615:	learn:	0.9903284	test:	0.2148097	best:	0.2145365	(6667)	total:	9m 37s	remaining:	1m
9616:	learn:	0.9903263	test:	0.2148107	best:	0.2145365	(6667)	total:	9m 37s	remaining:	1m
9617:	learn:	0.9903253	test:	0.2148113	best:	0.2145365	(6667)	total:	9m 37s	remaining:	1m
9618:	learn:	0.9903253	test:	0.2148174	best:	0.2145365	(6667)	total:	9m 37s	remaining:	1m
9619:	learn:	0.9903147	test:	0.2148108	best:	0.2145365	(6667)	total:	9m 37s	remaining:	1m
9620:	learn:	0.9903129	test:	0.2148177	best:	0.2145365	(6667)	total:	9m 37s	remaining:	1m
9621:	learn:	0.9903110	test:	0.2148193	best:	0.2145365	(6667)	total:	9m 37s	remaining:	1m
9622:	learn:	0.9903080	test:	0.2148190	best:	0.2145365	(6667)	total:	9m 37s	remaining:	5
9623:	learn:	0.9902938	test:	0.2148196	best:	0.2145365	(6667)	total:	9m 37s	remaining:	5
9624:	learn:	0.9902939	test:	0.2148187	best:	0.2145365	(6667)	total:	9m 37s	remaining:	5
9625:	learn:	0.9902898	test:	0.2148184	best:	0.2145365	(6667)	total:	9m 37s	remaining:	5
9626:	learn:	0.9902863	test:	0.2148202	best:	0.2145365	(6667)	total:	9m 37s	remaining:	5
9627:	learn:	0.9902818	test:	0.2148233	best:	0.2145365	(6667)	total:	9m 38s	remaining:	5
9628:	learn:	0.9902808	test:	0.2148232	best:	0.2145365	(6667)	total:	9m 38s	remaining:	5
9629:	learn:	0.9902776	test:	0.2148226	best:	0.2145365	(6667)	total:	9m 38s	remaining:	5
9630:	learn:	0.9902752	test:	0.2148251	best:	0.2145365	(6667)	total:	9m 38s	remaining:	5
9631:	learn:	0.9902748	test:	0.2148251	best:	0.2145365	(6667)	total:	9m 38s	remaining:	5
9632:	learn:	0.9902738	test:	0.2148255	best:	0.2145365	(6667)	total:	9m 38s	remaining:	5
9633:	learn:	0.9902761	test:	0.2148254	best:	0.2145365	(6667)	total:	9m 38s	remaining:	5
9634:	learn:	0.9902697	test:	0.2148259	best:	0.2145365	(6667)	total:	9m 38s	remaining:	5
9635:	learn:	0.9902692	test:	0.2148253	best:	0.2145365	(6667)	total:	9m 38s	remaining:	5
9636:	learn:	0.9902670	test:	0.2148218	best:	0.2145365	(6667)	total:	9m 38s	remaining:	59
9637:	learn:	0.9902656	test:	0.2148226	best:	0.2145365	(6667)	total:	9m 38s	remaining:	5
9638:	learn:	0.9902637	test:	0.2148234	best:	0.2145365	(6667)				

[illegible]

