

RNN Moneymaker

```
In [1]: import csv
import re
import torch
import time
import numpy as np
import matplotlib.pyplot as plt
import json
import os
from datetime import datetime

import torch.optim
import torch.nn as nn
import torch.nn.functional as F
from torch.utils.data import DataLoader
```

```
In [2]: root_path = 'scrape/data/'
```

```

In [3]: seq = []
        y = []
        name_and_date = []
        window_size = 122

        all_files = os.listdir(root_path)

        for i, filename in enumerate(all_files):

            # Only load a 1/N of all stocks
            if i % 50 == 0:

                len_stocks = len(all_files)
                print("Loading stock {}/{} ({})." .format(i + 1, len_stocks, filename), end='\r')

                with open(root_path + filename) as f:
                    if not filename.startswith('.'):
                        data = json.load(f)

                        temp1 = [] # for prices
                        temp2 = [] # for name and date

                        for k, v in data.items():
                            temp1.append(torch.tensor([ float(i[1]) for i in v.items() if i[0] != "5. volume" ]).unsqueeze(0))
                            temp2.append(k)

                        # reverse so that data is increasing in time
                        temp1.reverse()
                        temp2.reverse()

                        prices = torch.cat(temp1, 0)

                        for i in range(len(prices) - window_size - 1):
                            seq.append(prices[i:i+window_size].unsqueeze(0))
                            y.append(prices[i+window_size][3].item()) # predict
                                the closing price
                            name_and_date.append([filename.split('.')[0], temp2[i + window_size + 1]])

        X = torch.cat(seq, 0)
        y = torch.tensor(y).unsqueeze(1) # from (N,) to (N,1)

        print(X.shape)
        print(y.shape)

        torch.Size([178750, 122, 4])E.txt))
        torch.Size([178750, 1])

```

```

In [ ]: torch.save(X, 'assets/X.pt')
        torch.save(y, 'assets/y.pt')

```

```
In [ ]: X = torch.load('assets/X.pt')
        y = torch.load('assets/y.pt')
```

Normalize the input across each window-sized sequence

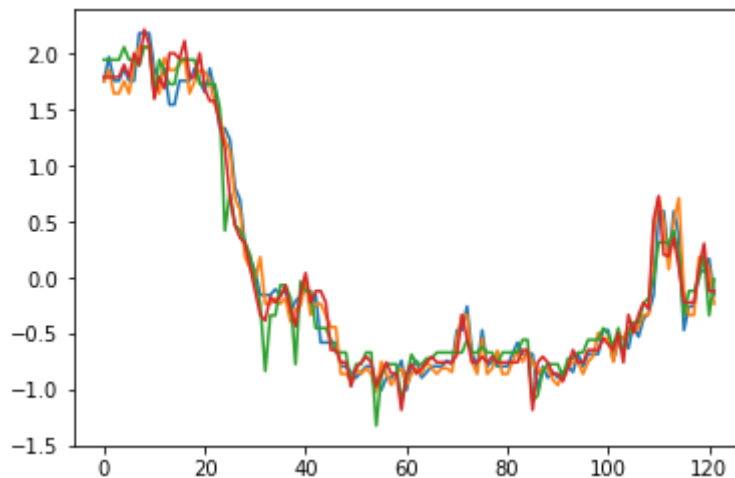
```
In [4]: X_mean = torch.mean(X, dim=1).unsqueeze(1)
        X_std = torch.std(X, dim=1).unsqueeze(1)

        X = (X - X_mean) / X_std
        y = (y - X_mean[:, :, 3]) / X_std[:, :, 3]

        print(X.shape)
        print(y.shape)
        plt.plot(X[0])
```

```
torch.Size([178750, 122, 4])
torch.Size([178750, 1])
```

```
Out[4]: [<matplotlib.lines.Line2D at 0x10fdd0dd8>,
         <matplotlib.lines.Line2D at 0x10fdd0fd0>,
         <matplotlib.lines.Line2D at 0x11010a160>,
         <matplotlib.lines.Line2D at 0x11010a2b0>]
```



Remove all inputs and corresponding outputs that contain NaN's

```

In [5]: print("old:")
        print(X.shape)
        print(y.shape)

        a = torch.sum(torch.sum(X == X, dim=1), dim=1) != 0
        b = (y == y) != 0

        c = a if torch.sum(a) < torch.sum(b) else b

        X = X[c]
        y = y[c] # To make y (N, 1) from (N,)

        print("new:")
        print(X.shape)
        print(y.shape)

old:
torch.Size([178750, 122, 4])
torch.Size([178750, 1])
new:
torch.Size([178730, 122, 4])
torch.Size([178730, 1])

```

Split data into training and validation sets

```

In [6]: N, S, D = X.shape
        perm = np.random.permutation(N)
        num_train = int(0.99*N)

        train_selector = perm[0:num_train]
        val_selector = perm[num_train:]

        X_train = X[train_selector]
        y_train = y[train_selector]
        X_val = X[val_selector]
        y_val = y[val_selector]

        print("X_train shape: ", X_train.shape)
        print("y_train shape: ", y_train.shape)
        print("X_val shape: ", X_val.shape)
        print("y_val shape: ", y_val.shape)

X_train shape: torch.Size([176942, 122, 4])
y_train shape: torch.Size([176942, 1])
X_val shape: torch.Size([1788, 122, 4])
y_val shape: torch.Size([1788, 1])

```

Training a RNN

```
In [7]: class Dataset(torch.utils.data.Dataset):  
    def __init__(self, X, Y):  
        self.X = X  
        self.Y = Y  
  
    def __len__(self):  
        return len(self.X)  
  
    def __getitem__(self, index):  
        return self.X[index], self.Y[index]
```

```
In [8]: batch_size = 32  
dataset = Dataset(X_train, y_train)  
loader = DataLoader(dataset, batch_size)
```

```
In [9]: class RNNClassifier(nn.Module):  
    def __init__(self, input_dim, hidden_dim, output_dim):  
        super(RNNClassifier, self).__init__()  
        self.input_dim = input_dim  
        self.hidden_dim = hidden_dim  
        self.output_dim = output_dim  
  
        self.rnn = nn.LSTM(input_dim, hidden_dim, batch_first=True)  
        self.drop = nn.Dropout(0.5)  
        self.fc = nn.Linear(hidden_dim, output_dim)  
  
    def forward(self, x, h=None):  
        if type(h) == type(None):  
            out, hn = self.rnn(x)  
        else:  
            out, hn = self.rnn(x, h.detach())  
        out = self.drop(out)  
        out = self.fc(out[:, -1, :])  
        return out
```

```
In [10]: input_dim = 4  
hidden_dim = 20  
output_dim = 1
```

```
In [11]: model = RNNClassifier(input_dim, hidden_dim, output_dim)  
criterion = nn.MSELoss()  
optimizer = torch.optim.Adam(model.parameters())
```

```
In [12]: train_accs = []  
val_accs = []  
train_losses = []  
val_losses = []  
epoch = 0
```

```
In [13]: t0 = time.time()
num_epochs = 3
for ep in range(num_epochs):
    tstart = time.time()
    for i, data in enumerate(loader):
        print(i, end='\r')
        optimizer.zero_grad()
        outputs = model(data[0])
        loss = criterion(outputs, data[1])
        loss.backward()
        optimizer.step()

        if i % 100 == 0:
            train_losses.append(loss.item())
            pXval = model(X_val)
            vloss = criterion(pXval, y_val)
            val_losses.append(vloss.item())
            print("training loss: {:<3.3f} \t val loss: {:<3.3f}".format(
                (loss, vloss))

    ptrain = model(X_train)
    tloss = criterion(ptrain, y_train)
    train_losses.append(tloss.item())

    pXval = model(X_val)
    vloss = criterion(pXval, y_val)
    val_losses.append(vloss.item())
    epoch += 1
    tend = time.time()
    print('epoch: {:<3d} \t time: {:<3.2f} \t training loss: {:<3.3f} \t
        val loss: {:<3.3f}'.format(epoch,
            tend - tstart, tloss.item(), vloss.item()))
    time_total = time.time() - t0
    print('Total time: {:<4.3f}, average time per epoch: {:<4.3f}'.format(time
        _total, time_total / num_epochs))
```

training loss: 2.308	val loss: 2.246		
training loss: 0.162	val loss: 0.592		
training loss: 0.355	val loss: 0.460		
training loss: 0.247	val loss: 0.408		
training loss: 0.336	val loss: 0.361		
training loss: 0.255	val loss: 0.364		
training loss: 0.236	val loss: 0.346		
training loss: 0.372	val loss: 0.311		
training loss: 0.121	val loss: 0.290		
training loss: 0.197	val loss: 0.305		
training loss: 0.209	val loss: 0.296		
training loss: 0.445	val loss: 0.280		
training loss: 0.235	val loss: 0.288		
training loss: 0.426	val loss: 0.275		
training loss: 0.213	val loss: 0.293		
training loss: 0.596	val loss: 0.288		
training loss: 0.207	val loss: 0.261		
training loss: 0.100	val loss: 0.274		
training loss: 0.161	val loss: 0.251		
training loss: 0.393	val loss: 0.249		
training loss: 0.223	val loss: 0.267		
training loss: 0.374	val loss: 0.238		
training loss: 0.594	val loss: 0.255		
training loss: 0.215	val loss: 0.245		
training loss: 0.229	val loss: 0.248		
training loss: 0.173	val loss: 0.265		
training loss: 0.158	val loss: 0.253		
training loss: 0.239	val loss: 0.247		
training loss: 0.187	val loss: 0.251		
training loss: 0.289	val loss: 0.244		
training loss: 0.129	val loss: 0.244		
training loss: 0.451	val loss: 0.257		
training loss: 0.182	val loss: 0.250		
training loss: 0.152	val loss: 0.237		
training loss: 0.212	val loss: 0.230		
training loss: 0.504	val loss: 0.239		
training loss: 0.224	val loss: 0.228		
training loss: 0.306	val loss: 0.250		
training loss: 0.202	val loss: 0.230		
training loss: 0.411	val loss: 0.338		
training loss: 0.452	val loss: 0.274		
training loss: 0.184	val loss: 0.267		
training loss: 0.218	val loss: 0.257		
training loss: 0.204	val loss: 0.244		
training loss: 0.258	val loss: 0.253		
training loss: 0.249	val loss: 0.250		
training loss: 0.113	val loss: 0.236		
training loss: 0.204	val loss: 0.241		
training loss: 0.130	val loss: 0.225		
training loss: 0.099	val loss: 0.237		
training loss: 0.390	val loss: 0.238		
training loss: 0.356	val loss: 0.242		
training loss: 0.246	val loss: 0.256		
training loss: 0.124	val loss: 0.247		
training loss: 0.247	val loss: 0.222		
training loss: 0.193	val loss: 0.233		
epoch: 1	time: 435.96	training loss: 5.245	val loss: 0.23

```
1
training loss: 0.193    val loss: 0.231
training loss: 0.084    val loss: 0.236
training loss: 0.232    val loss: 0.252
training loss: 0.139    val loss: 0.228
training loss: 0.184    val loss: 0.233
training loss: 0.215    val loss: 0.235
training loss: 0.152    val loss: 0.247
training loss: 0.235    val loss: 0.241
training loss: 0.172    val loss: 0.217
training loss: 0.198    val loss: 0.233
training loss: 0.148    val loss: 0.231
training loss: 0.522    val loss: 0.219
training loss: 0.195    val loss: 0.221
training loss: 0.328    val loss: 0.228
training loss: 0.120    val loss: 0.233
training loss: 0.385    val loss: 0.228
training loss: 0.165    val loss: 0.224
training loss: 0.174    val loss: 0.242
training loss: 0.345    val loss: 0.230
training loss: 0.281    val loss: 0.220
training loss: 0.097    val loss: 0.229
training loss: 0.407    val loss: 0.240
training loss: 0.281    val loss: 0.226
training loss: 0.178    val loss: 0.223
training loss: 0.201    val loss: 0.234
training loss: 0.366    val loss: 0.233
training loss: 0.168    val loss: 0.230
training loss: 0.251    val loss: 0.225
training loss: 0.158    val loss: 0.243
training loss: 0.127    val loss: 0.221
training loss: 0.094    val loss: 0.233
training loss: 0.407    val loss: 0.232
training loss: 0.202    val loss: 0.232
training loss: 0.197    val loss: 0.226
training loss: 0.144    val loss: 0.225
training loss: 0.488    val loss: 0.232
training loss: 0.165    val loss: 0.224
training loss: 0.285    val loss: 0.224
training loss: 0.177    val loss: 0.231
training loss: 0.273    val loss: 0.327
training loss: 0.251    val loss: 0.279
training loss: 0.242    val loss: 0.249
training loss: 0.249    val loss: 0.256
training loss: 0.188    val loss: 0.248
training loss: 0.288    val loss: 0.241
training loss: 0.243    val loss: 0.232
training loss: 0.176    val loss: 0.237
training loss: 0.107    val loss: 0.240
training loss: 0.118    val loss: 0.225
training loss: 0.093    val loss: 0.247
training loss: 0.312    val loss: 0.234
training loss: 0.166    val loss: 0.216
training loss: 0.245    val loss: 0.235
training loss: 0.135    val loss: 0.241
training loss: 0.245    val loss: 0.233
training loss: 0.153    val loss: 0.247
```



```
epoch: 2          time: 464.82    training loss: 5.239    val loss: 0.21
6
training loss: 0.180    val loss: 0.224
training loss: 0.092    val loss: 0.226
training loss: 0.135    val loss: 0.221
training loss: 0.135    val loss: 0.236
training loss: 0.097    val loss: 0.231
training loss: 0.251    val loss: 0.238
training loss: 0.182    val loss: 0.223
training loss: 0.109    val loss: 0.241
training loss: 0.104    val loss: 0.229
training loss: 0.247    val loss: 0.229
training loss: 0.149    val loss: 0.229
training loss: 0.338    val loss: 0.227
training loss: 0.192    val loss: 0.207
training loss: 0.318    val loss: 0.234
training loss: 0.178    val loss: 0.238
training loss: 0.804    val loss: 0.212
training loss: 0.122    val loss: 0.238
training loss: 0.137    val loss: 0.228
training loss: 0.134    val loss: 0.221
training loss: 0.264    val loss: 0.218
training loss: 0.116    val loss: 0.229
training loss: 0.247    val loss: 0.229
training loss: 0.190    val loss: 0.214
training loss: 0.226    val loss: 0.224
training loss: 0.215    val loss: 0.229
training loss: 0.235    val loss: 0.240
training loss: 0.138    val loss: 0.222
training loss: 0.252    val loss: 0.239
training loss: 0.125    val loss: 0.231
training loss: 0.186    val loss: 0.245
training loss: 0.255    val loss: 0.219
training loss: 0.382    val loss: 0.225
training loss: 0.129    val loss: 0.223
training loss: 0.214    val loss: 0.227
training loss: 0.198    val loss: 0.220
training loss: 0.538    val loss: 0.219
training loss: 0.140    val loss: 0.235
training loss: 0.361    val loss: 0.235
training loss: 0.198    val loss: 0.236
training loss: 0.291    val loss: 0.319
training loss: 0.324    val loss: 0.267
training loss: 0.182    val loss: 0.239
training loss: 0.258    val loss: 0.236
training loss: 0.311    val loss: 0.252
training loss: 0.316    val loss: 0.244
training loss: 0.237    val loss: 0.244
training loss: 0.102    val loss: 0.225
training loss: 0.147    val loss: 0.231
training loss: 0.126    val loss: 0.232
training loss: 0.145    val loss: 0.241
training loss: 0.323    val loss: 0.235
training loss: 0.238    val loss: 0.217
training loss: 0.167    val loss: 0.229
training loss: 0.253    val loss: 0.219
training loss: 0.319    val loss: 0.222
```

```

training loss: 0.162      val loss: 0.218
epoch: 3                time: 520.55      training loss: 5.241      val loss: 0.218
Total time: 1421.373, average time per epoch: 473.791

```

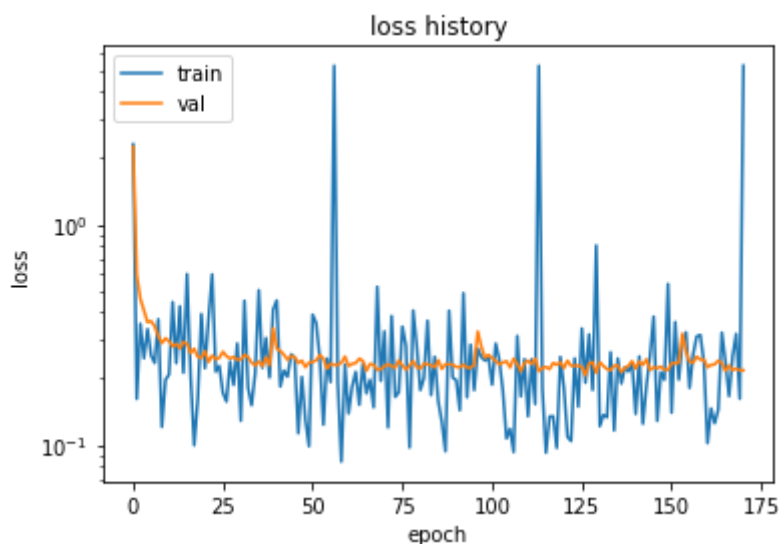
```
In [ ]: torch.save(model, 'assets/model.pt')
```

Model evaluation

```
In [ ]: model = torch.load('assets/model.pt')
```

```
In [14]: t_losses = [i for i in train_losses if i < 4000]
plt.plot(t_losses)
plt.plot(val_losses)
plt.title('loss history')
plt.xlabel('epoch')
plt.ylabel('loss')
plt.yscale('log')
plt.legend(['train', 'val'])
```

```
Out[14]: <matplotlib.legend.Legend at 0x112caae80>
```



```
In [15]: model.eval()
```

```
Out[15]: RNNClassifier(
  (rnn): LSTM(4, 20, batch_first=True)
  (drop): Dropout(p=0.5, inplace=False)
  (fc): Linear(in_features=20, out_features=1, bias=True)
)
```

```
In [16]: pred = model(X_val)
print(criterion(pred, y_val))
```

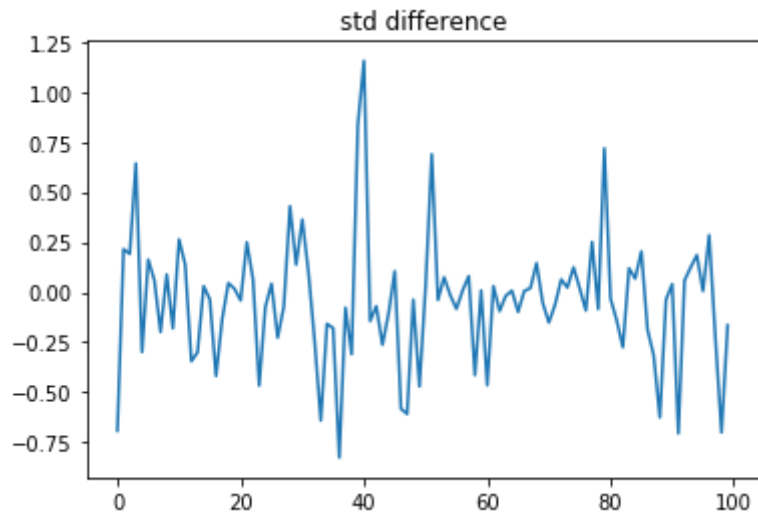
```
tensor(0.1290, grad_fn=<MseLossBackward>)
```

Model predictions compared to standard deviations

```
In [136]: pred = model(X_val)

plt.plot((pred - y_val).detach()[1000:1100])
plt.title('std difference')
```

```
Out[136]: Text(0.5,1,'std difference')
```

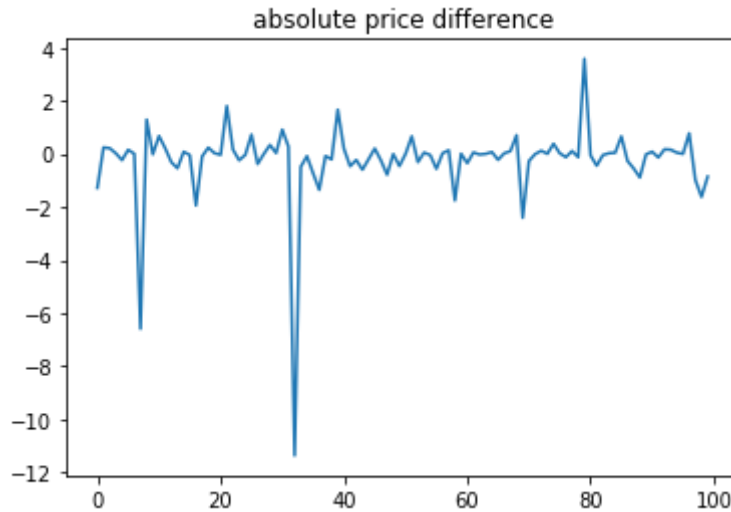


Model predictions compared to actual price

```
In [139]: pred_abs = pred * X_std[val_selector][:,:,3] + X_mean[val_selector][:,:,3]
y_val_abs = y_val * X_std[val_selector][:,:,3] + X_mean[val_selector][:,:,3]

plt.plot((pred_abs - y_val_abs).detach()[1000:1100])
plt.title('absolute price difference')
```

Out[139]: Text(0.5,1,'absolute price difference')



Testing and visualizing random stock in test data

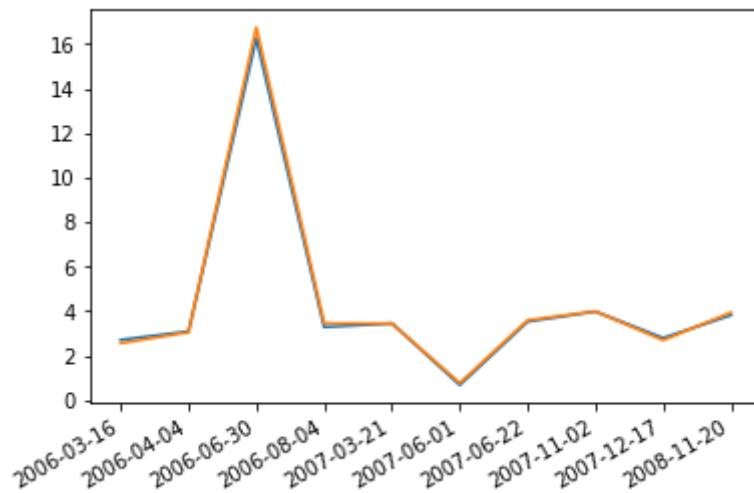
```
In [138]: val_names_and_dates = np.array(name_and_date)[val_selector]

stock = "AUTO";
stock_selector = torch.tensor(val_names_and_dates[:,0] == (stock + ".txt"))

s_pred_abs = pred_abs[stock_selector]
s_y_val_abs = y_val_abs[stock_selector]

stock_dates = val_names_and_dates[stock_selector][:,1]
```

```
In [143]: stock_dates.sort()
fig, ax = plt.subplots()
ax.plot(stock_dates[10:20], s_pred_abs.detach()[10:20])
ax.plot(stock_dates[10:20], s_y_val_abs.detach()[10:20])
fig.autofmt_xdate()
start, end = ax.get_xlim()
plt.show()
```



Testing random unseen stock (skipped over in the data loading stage)

```

In [135]: seq = []
          test_y = []
          test_name_and_date = []
          window_size = 122

          with open(root_path + "AAPL.txt") as f:
              data = json.load(f)

              temp1 = [] # for prices
              temp2 = [] # for name and date

              for k, v in data.items():
                  temp1.append(torch.tensor([ float(i[1]) for i in v.items() if i[0] != "5. volume" ]).unsqueeze(0))
                  temp2.append(k)

              # reverse so that data is increasing in time
              temp1.reverse()
              temp2.reverse()

              prices = torch.cat(temp1, 0)

              for i in range(len(prices) - window_size - 1):
                  seq.append(prices[i:i+window_size].unsqueeze(0))
                  test_y.append(prices[i+window_size][3].item()) # predict the closing price
                  test_name_and_date.append(['AAPL', temp2[i + window_size + 1]])

          test_X = torch.cat(seq, 0)
          test_y = torch.tensor(test_y).unsqueeze(1) # from (N,) to (N,1)

          test_X_mean = torch.mean(test_X, dim=1).unsqueeze(1)
          test_X_std = torch.std(test_X, dim=1).unsqueeze(1)

          test_X = (test_X - test_X_mean) / test_X_std
          test_y = (test_y - test_X_mean[:, :, 3]) / test_X_std[:, :, 3]

          test_pred = model(test_X)
          print(criterion(test_pred, test_y))

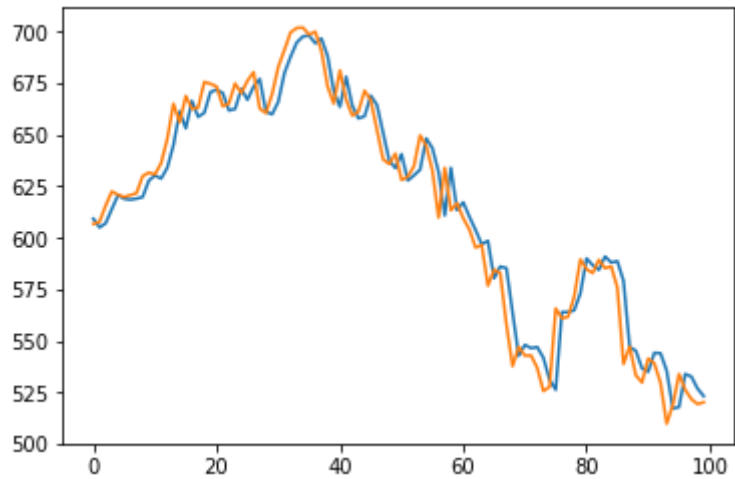
          test_pred = test_pred * test_X_std[:, :, 3] + test_X_mean[:, :, 3]
          test_y = test_y * test_X_std[:, :, 3] + test_X_mean[:, :, 3]

          plt.plot(test_pred.detach()[3000:3100])
          plt.plot(test_y[3000:3100])

```

```
tensor(0.1389, grad_fn=<MseLossBackward>)
```

```
Out[135]: [<matplotlib.lines.Line2D at 0x274962fd0>]
```



```
In [122]: dates = [i[1] for i in test_name_and_date]
           print(dates)
           temp_pred = [ i.data[0] for i in test_pred.detach().numpy() ]
           temp_y = [ i.data[0] for i in test_y.detach().numpy() ]
```


['2000-08-29', '2000-08-30', '2000-08-31', '2000-09-01', '2000-09-05',
'2000-09-06', '2000-09-07', '2000-09-08', '2000-09-11', '2000-09-12',
'2000-09-13', '2000-09-14', '2000-09-15', '2000-09-18', '2000-09-19',
'2000-09-20', '2000-09-21', '2000-09-22', '2000-09-25', '2000-09-26',
'2000-09-27', '2000-09-28', '2000-09-29', '2000-10-02', '2000-10-03',
'2000-10-04', '2000-10-05', '2000-10-06', '2000-10-09', '2000-10-10',
'2000-10-11', '2000-10-12', '2000-10-13', '2000-10-16', '2000-10-17',
'2000-10-18', '2000-10-19', '2000-10-20', '2000-10-23', '2000-10-24',
'2000-10-25', '2000-10-26', '2000-10-27', '2000-10-30', '2000-10-31',
'2000-11-01', '2000-11-02', '2000-11-03', '2000-11-06', '2000-11-07',
'2000-11-08', '2000-11-09', '2000-11-10', '2000-11-13', '2000-11-14',
'2000-11-15', '2000-11-16', '2000-11-17', '2000-11-20', '2000-11-21',
'2000-11-22', '2000-11-24', '2000-11-27', '2000-11-28', '2000-11-29',
'2000-11-30', '2000-12-01', '2000-12-04', '2000-12-05', '2000-12-06',
'2000-12-07', '2000-12-08', '2000-12-11', '2000-12-12', '2000-12-13',
'2000-12-14', '2000-12-15', '2000-12-18', '2000-12-19', '2000-12-20',
'2000-12-21', '2000-12-22', '2000-12-26', '2000-12-27', '2000-12-28',
'2000-12-29', '2001-01-02', '2001-01-03', '2001-01-04', '2001-01-05',
'2001-01-08', '2001-01-09', '2001-01-10', '2001-01-11', '2001-01-12',
'2001-01-16', '2001-01-17', '2001-01-18', '2001-01-19', '2001-01-22',
'2001-01-23', '2001-01-24', '2001-01-25', '2001-01-26', '2001-01-29',
'2001-01-30', '2001-01-31', '2001-02-01', '2001-02-02', '2001-02-05',
'2001-02-06', '2001-02-07', '2001-02-08', '2001-02-09', '2001-02-12',
'2001-02-13', '2001-02-14', '2001-02-15', '2001-02-16', '2001-02-20',
'2001-02-21', '2001-02-22', '2001-02-23', '2001-02-26', '2001-02-27',
'2001-02-28', '2001-03-01', '2001-03-02', '2001-03-05', '2001-03-06',
'2001-03-07', '2001-03-08', '2001-03-09', '2001-03-12', '2001-03-13',
'2001-03-14', '2001-03-15', '2001-03-16', '2001-03-19', '2001-03-20',
'2001-03-21', '2001-03-22', '2001-03-23', '2001-03-26', '2001-03-27',
'2001-03-28', '2001-03-29', '2001-03-30', '2001-04-02', '2001-04-03',
'2001-04-04', '2001-04-05', '2001-04-06', '2001-04-09', '2001-04-10',
'2001-04-11', '2001-04-12', '2001-04-16', '2001-04-17', '2001-04-18',
'2001-04-19', '2001-04-20', '2001-04-23', '2001-04-24', '2001-04-25',
'2001-04-26', '2001-04-27', '2001-04-30', '2001-05-01', '2001-05-02',
'2001-05-03', '2001-05-04', '2001-05-07', '2001-05-08', '2001-05-09',
'2001-05-10', '2001-05-11', '2001-05-14', '2001-05-15', '2001-05-16',
'2001-05-17', '2001-05-18', '2001-05-21', '2001-05-22', '2001-05-23',
'2001-05-24', '2001-05-25', '2001-05-29', '2001-05-30', '2001-05-31',
'2001-06-01', '2001-06-04', '2001-06-05', '2001-06-06', '2001-06-07',
'2001-06-08', '2001-06-11', '2001-06-12', '2001-06-13', '2001-06-14',
'2001-06-15', '2001-06-18', '2001-06-19', '2001-06-20', '2001-06-21',
'2001-06-22', '2001-06-25', '2001-06-26', '2001-06-27', '2001-06-28',
'2001-06-29', '2001-07-02', '2001-07-03', '2001-07-05', '2001-07-06',
'2001-07-09', '2001-07-10', '2001-07-11', '2001-07-12', '2001-07-13',
'2001-07-16', '2001-07-17', '2001-07-18', '2001-07-19', '2001-07-20',
'2001-07-23', '2001-07-24', '2001-07-25', '2001-07-26', '2001-07-27',
'2001-07-30', '2001-07-31', '2001-08-01', '2001-08-02', '2001-08-03',
'2001-08-06', '2001-08-07', '2001-08-08', '2001-08-09', '2001-08-10',
'2001-08-13', '2001-08-14', '2001-08-15', '2001-08-16', '2001-08-17',
'2001-08-20', '2001-08-21', '2001-08-22', '2001-08-23', '2001-08-24',
'2001-08-27', '2001-08-28', '2001-08-29', '2001-08-30', '2001-08-31',
'2001-09-04', '2001-09-05', '2001-09-06', '2001-09-07', '2001-09-10',
'2001-09-17', '2001-09-18', '2001-09-19', '2001-09-20', '2001-09-21',
'2001-09-24', '2001-09-25', '2001-09-26', '2001-09-27', '2001-09-28',
'2001-10-01', '2001-10-02', '2001-10-03', '2001-10-04', '2001-10-05',
'2001-10-08', '2001-10-09', '2001-10-10', '2001-10-11', '2001-10-12',
'2001-10-15', '2001-10-16', '2001-10-17', '2001-10-18', '2001-10-19',

'2001-10-22', '2001-10-23', '2001-10-24', '2001-10-25', '2001-10-26',
'2001-10-29', '2001-10-30', '2001-10-31', '2001-11-01', '2001-11-02',
'2001-11-05', '2001-11-06', '2001-11-07', '2001-11-08', '2001-11-09',
'2001-11-12', '2001-11-13', '2001-11-14', '2001-11-15', '2001-11-16',
'2001-11-19', '2001-11-20', '2001-11-21', '2001-11-23', '2001-11-26',
'2001-11-27', '2001-11-28', '2001-11-29', '2001-11-30', '2001-12-03',
'2001-12-04', '2001-12-05', '2001-12-06', '2001-12-07', '2001-12-10',
'2001-12-11', '2001-12-12', '2001-12-13', '2001-12-14', '2001-12-17',
'2001-12-18', '2001-12-19', '2001-12-20', '2001-12-21', '2001-12-24',
'2001-12-26', '2001-12-27', '2001-12-28', '2001-12-31', '2002-01-02',
'2002-01-03', '2002-01-04', '2002-01-07', '2002-01-08', '2002-01-09',
'2002-01-10', '2002-01-11', '2002-01-14', '2002-01-15', '2002-01-16',
'2002-01-17', '2002-01-18', '2002-01-22', '2002-01-23', '2002-01-24',
'2002-01-25', '2002-01-28', '2002-01-29', '2002-01-30', '2002-01-31',
'2002-02-01', '2002-02-04', '2002-02-05', '2002-02-06', '2002-02-07',
'2002-02-08', '2002-02-11', '2002-02-12', '2002-02-13', '2002-02-14',
'2002-02-15', '2002-02-19', '2002-02-20', '2002-02-21', '2002-02-22',
'2002-02-25', '2002-02-26', '2002-02-27', '2002-02-28', '2002-03-01',
'2002-03-04', '2002-03-05', '2002-03-06', '2002-03-07', '2002-03-08',
'2002-03-11', '2002-03-12', '2002-03-13', '2002-03-14', '2002-03-15',
'2002-03-18', '2002-03-19', '2002-03-20', '2002-03-21', '2002-03-22',
'2002-03-25', '2002-03-26', '2002-03-27', '2002-03-28', '2002-04-01',
'2002-04-02', '2002-04-03', '2002-04-04', '2002-04-05', '2002-04-08',
'2002-04-09', '2002-04-10', '2002-04-11', '2002-04-12', '2002-04-15',
'2002-04-16', '2002-04-17', '2002-04-18', '2002-04-19', '2002-04-22',
'2002-04-23', '2002-04-24', '2002-04-25', '2002-04-26', '2002-04-29',
'2002-04-30', '2002-05-01', '2002-05-02', '2002-05-03', '2002-05-06',
'2002-05-07', '2002-05-08', '2002-05-09', '2002-05-10', '2002-05-13',
'2002-05-14', '2002-05-15', '2002-05-16', '2002-05-17', '2002-05-20',
'2002-05-21', '2002-05-22', '2002-05-23', '2002-05-24', '2002-05-28',
'2002-05-29', '2002-05-30', '2002-05-31', '2002-06-03', '2002-06-04',
'2002-06-05', '2002-06-06', '2002-06-07', '2002-06-10', '2002-06-11',
'2002-06-12', '2002-06-13', '2002-06-14', '2002-06-17', '2002-06-18',
'2002-06-19', '2002-06-20', '2002-06-21', '2002-06-24', '2002-06-25',
'2002-06-26', '2002-06-27', '2002-06-28', '2002-07-01', '2002-07-02',
'2002-07-03', '2002-07-05', '2002-07-08', '2002-07-09', '2002-07-10',
'2002-07-11', '2002-07-12', '2002-07-15', '2002-07-16', '2002-07-17',
'2002-07-18', '2002-07-19', '2002-07-22', '2002-07-23', '2002-07-24',
'2002-07-25', '2002-07-26', '2002-07-29', '2002-07-30', '2002-07-31',
'2002-08-01', '2002-08-02', '2002-08-05', '2002-08-06', '2002-08-07',
'2002-08-08', '2002-08-09', '2002-08-12', '2002-08-13', '2002-08-14',
'2002-08-15', '2002-08-16', '2002-08-19', '2002-08-20', '2002-08-21',
'2002-08-22', '2002-08-23', '2002-08-26', '2002-08-27', '2002-08-28',
'2002-08-29', '2002-08-30', '2002-09-03', '2002-09-04', '2002-09-05',
'2002-09-06', '2002-09-09', '2002-09-10', '2002-09-11', '2002-09-12',
'2002-09-13', '2002-09-16', '2002-09-17', '2002-09-18', '2002-09-19',
'2002-09-20', '2002-09-23', '2002-09-24', '2002-09-25', '2002-09-26',
'2002-09-27', '2002-09-30', '2002-10-01', '2002-10-02', '2002-10-03',
'2002-10-04', '2002-10-07', '2002-10-08', '2002-10-09', '2002-10-10',
'2002-10-11', '2002-10-14', '2002-10-15', '2002-10-16', '2002-10-17',
'2002-10-18', '2002-10-21', '2002-10-22', '2002-10-23', '2002-10-24',
'2002-10-25', '2002-10-28', '2002-10-29', '2002-10-30', '2002-10-31',
'2002-11-01', '2002-11-04', '2002-11-05', '2002-11-06', '2002-11-07',
'2002-11-08', '2002-11-11', '2002-11-12', '2002-11-13', '2002-11-14',
'2002-11-15', '2002-11-18', '2002-11-19', '2002-11-20', '2002-11-21',
'2002-11-22', '2002-11-25', '2002-11-26', '2002-11-27', '2002-11-29',
'2002-12-02', '2002-12-03', '2002-12-04', '2002-12-05', '2002-12-06',

'2002-12-09', '2002-12-10', '2002-12-11', '2002-12-12', '2002-12-13',
'2002-12-16', '2002-12-17', '2002-12-18', '2002-12-19', '2002-12-20',
'2002-12-23', '2002-12-24', '2002-12-26', '2002-12-27', '2002-12-30',
'2002-12-31', '2003-01-02', '2003-01-03', '2003-01-06', '2003-01-07',
'2003-01-08', '2003-01-09', '2003-01-10', '2003-01-13', '2003-01-14',
'2003-01-15', '2003-01-16', '2003-01-17', '2003-01-21', '2003-01-22',
'2003-01-23', '2003-01-24', '2003-01-27', '2003-01-28', '2003-01-29',
'2003-01-30', '2003-01-31', '2003-02-03', '2003-02-04', '2003-02-05',
'2003-02-06', '2003-02-07', '2003-02-10', '2003-02-11', '2003-02-12',
'2003-02-13', '2003-02-14', '2003-02-18', '2003-02-19', '2003-02-20',
'2003-02-21', '2003-02-24', '2003-02-25', '2003-02-26', '2003-02-27',
'2003-02-28', '2003-03-03', '2003-03-04', '2003-03-05', '2003-03-06',
'2003-03-07', '2003-03-10', '2003-03-11', '2003-03-12', '2003-03-13',
'2003-03-14', '2003-03-17', '2003-03-18', '2003-03-19', '2003-03-20',
'2003-03-21', '2003-03-24', '2003-03-25', '2003-03-26', '2003-03-27',
'2003-03-28', '2003-03-31', '2003-04-01', '2003-04-02', '2003-04-03',
'2003-04-04', '2003-04-07', '2003-04-08', '2003-04-09', '2003-04-10',
'2003-04-11', '2003-04-14', '2003-04-15', '2003-04-16', '2003-04-17',
'2003-04-21', '2003-04-22', '2003-04-23', '2003-04-24', '2003-04-25',
'2003-04-28', '2003-04-29', '2003-04-30', '2003-05-01', '2003-05-02',
'2003-05-05', '2003-05-06', '2003-05-07', '2003-05-08', '2003-05-09',
'2003-05-12', '2003-05-13', '2003-05-14', '2003-05-15', '2003-05-16',
'2003-05-19', '2003-05-20', '2003-05-21', '2003-05-22', '2003-05-23',
'2003-05-27', '2003-05-28', '2003-05-29', '2003-05-30', '2003-06-02',
'2003-06-03', '2003-06-04', '2003-06-05', '2003-06-06', '2003-06-09',
'2003-06-10', '2003-06-11', '2003-06-12', '2003-06-13', '2003-06-16',
'2003-06-17', '2003-06-18', '2003-06-19', '2003-06-20', '2003-06-23',
'2003-06-24', '2003-06-25', '2003-06-26', '2003-06-27', '2003-06-30',
'2003-07-01', '2003-07-02', '2003-07-03', '2003-07-07', '2003-07-08',
'2003-07-09', '2003-07-10', '2003-07-11', '2003-07-14', '2003-07-15',
'2003-07-16', '2003-07-17', '2003-07-18', '2003-07-21', '2003-07-22',
'2003-07-23', '2003-07-24', '2003-07-25', '2003-07-28', '2003-07-29',
'2003-07-30', '2003-07-31', '2003-08-01', '2003-08-04', '2003-08-05',
'2003-08-06', '2003-08-07', '2003-08-08', '2003-08-11', '2003-08-12',
'2003-08-13', '2003-08-14', '2003-08-15', '2003-08-18', '2003-08-19',
'2003-08-20', '2003-08-21', '2003-08-22', '2003-08-25', '2003-08-26',
'2003-08-27', '2003-08-28', '2003-08-29', '2003-09-02', '2003-09-03',
'2003-09-04', '2003-09-05', '2003-09-08', '2003-09-09', '2003-09-10',
'2003-09-11', '2003-09-12', '2003-09-15', '2003-09-16', '2003-09-17',
'2003-09-18', '2003-09-19', '2003-09-22', '2003-09-23', '2003-09-24',
'2003-09-25', '2003-09-26', '2003-09-29', '2003-09-30', '2003-10-01',
'2003-10-02', '2003-10-03', '2003-10-06', '2003-10-07', '2003-10-08',
'2003-10-09', '2003-10-10', '2003-10-13', '2003-10-14', '2003-10-15',
'2003-10-16', '2003-10-17', '2003-10-20', '2003-10-21', '2003-10-22',
'2003-10-23', '2003-10-24', '2003-10-27', '2003-10-28', '2003-10-29',
'2003-10-30', '2003-10-31', '2003-11-03', '2003-11-04', '2003-11-05',
'2003-11-06', '2003-11-07', '2003-11-10', '2003-11-11', '2003-11-12',
'2003-11-13', '2003-11-14', '2003-11-17', '2003-11-18', '2003-11-19',
'2003-11-20', '2003-11-21', '2003-11-24', '2003-11-25', '2003-11-26',
'2003-11-28', '2003-12-01', '2003-12-02', '2003-12-03', '2003-12-04',
'2003-12-05', '2003-12-08', '2003-12-09', '2003-12-10', '2003-12-11',
'2003-12-12', '2003-12-15', '2003-12-16', '2003-12-17', '2003-12-18',
'2003-12-19', '2003-12-22', '2003-12-23', '2003-12-24', '2003-12-26',
'2003-12-29', '2003-12-30', '2003-12-31', '2004-01-02', '2004-01-05',
'2004-01-06', '2004-01-07', '2004-01-08', '2004-01-09', '2004-01-12',
'2004-01-13', '2004-01-14', '2004-01-15', '2004-01-16', '2004-01-20',
'2004-01-21', '2004-01-22', '2004-01-23', '2004-01-26', '2004-01-27',

'2004-01-28', '2004-01-29', '2004-01-30', '2004-02-02', '2004-02-03',
'2004-02-04', '2004-02-05', '2004-02-06', '2004-02-09', '2004-02-10',
'2004-02-11', '2004-02-12', '2004-02-13', '2004-02-17', '2004-02-18',
'2004-02-19', '2004-02-20', '2004-02-23', '2004-02-24', '2004-02-25',
'2004-02-26', '2004-02-27', '2004-03-01', '2004-03-02', '2004-03-03',
'2004-03-04', '2004-03-05', '2004-03-08', '2004-03-09', '2004-03-10',
'2004-03-11', '2004-03-12', '2004-03-15', '2004-03-16', '2004-03-17',
'2004-03-18', '2004-03-19', '2004-03-22', '2004-03-23', '2004-03-24',
'2004-03-25', '2004-03-26', '2004-03-29', '2004-03-30', '2004-03-31',
'2004-04-01', '2004-04-02', '2004-04-05', '2004-04-06', '2004-04-07',
'2004-04-08', '2004-04-12', '2004-04-13', '2004-04-14', '2004-04-15',
'2004-04-16', '2004-04-19', '2004-04-20', '2004-04-21', '2004-04-22',
'2004-04-23', '2004-04-26', '2004-04-27', '2004-04-28', '2004-04-29',
'2004-04-30', '2004-05-03', '2004-05-04', '2004-05-05', '2004-05-06',
'2004-05-07', '2004-05-10', '2004-05-11', '2004-05-12', '2004-05-13',
'2004-05-14', '2004-05-17', '2004-05-18', '2004-05-19', '2004-05-20',
'2004-05-21', '2004-05-24', '2004-05-25', '2004-05-26', '2004-05-27',
'2004-05-28', '2004-06-01', '2004-06-02', '2004-06-03', '2004-06-04',
'2004-06-07', '2004-06-08', '2004-06-09', '2004-06-10', '2004-06-14',
'2004-06-15', '2004-06-16', '2004-06-17', '2004-06-18', '2004-06-21',
'2004-06-22', '2004-06-23', '2004-06-24', '2004-06-25', '2004-06-28',
'2004-06-29', '2004-06-30', '2004-07-01', '2004-07-02', '2004-07-06',
'2004-07-07', '2004-07-08', '2004-07-09', '2004-07-12', '2004-07-13',
'2004-07-14', '2004-07-15', '2004-07-16', '2004-07-19', '2004-07-20',
'2004-07-21', '2004-07-22', '2004-07-23', '2004-07-26', '2004-07-27',
'2004-07-28', '2004-07-29', '2004-07-30', '2004-08-02', '2004-08-03',
'2004-08-04', '2004-08-05', '2004-08-06', '2004-08-09', '2004-08-10',
'2004-08-11', '2004-08-12', '2004-08-13', '2004-08-16', '2004-08-17',
'2004-08-18', '2004-08-19', '2004-08-20', '2004-08-23', '2004-08-24',
'2004-08-25', '2004-08-26', '2004-08-27', '2004-08-30', '2004-08-31',
'2004-09-01', '2004-09-02', '2004-09-03', '2004-09-07', '2004-09-08',
'2004-09-09', '2004-09-10', '2004-09-13', '2004-09-14', '2004-09-15',
'2004-09-16', '2004-09-17', '2004-09-20', '2004-09-21', '2004-09-22',
'2004-09-23', '2004-09-24', '2004-09-27', '2004-09-28', '2004-09-29',
'2004-09-30', '2004-10-01', '2004-10-04', '2004-10-05', '2004-10-06',
'2004-10-07', '2004-10-08', '2004-10-11', '2004-10-12', '2004-10-13',
'2004-10-14', '2004-10-15', '2004-10-18', '2004-10-19', '2004-10-20',
'2004-10-21', '2004-10-22', '2004-10-25', '2004-10-26', '2004-10-27',
'2004-10-28', '2004-10-29', '2004-11-01', '2004-11-02', '2004-11-03',
'2004-11-04', '2004-11-05', '2004-11-08', '2004-11-09', '2004-11-10',
'2004-11-11', '2004-11-12', '2004-11-15', '2004-11-16', '2004-11-17',
'2004-11-18', '2004-11-19', '2004-11-22', '2004-11-23', '2004-11-24',
'2004-11-26', '2004-11-29', '2004-11-30', '2004-12-01', '2004-12-02',
'2004-12-03', '2004-12-06', '2004-12-07', '2004-12-08', '2004-12-09',
'2004-12-10', '2004-12-13', '2004-12-14', '2004-12-15', '2004-12-16',
'2004-12-17', '2004-12-20', '2004-12-21', '2004-12-22', '2004-12-23',
'2004-12-27', '2004-12-28', '2004-12-29', '2004-12-30', '2004-12-31',
'2005-01-03', '2005-01-04', '2005-01-05', '2005-01-06', '2005-01-07',
'2005-01-10', '2005-01-11', '2005-01-12', '2005-01-13', '2005-01-14',
'2005-01-18', '2005-01-19', '2005-01-20', '2005-01-21', '2005-01-24',
'2005-01-25', '2005-01-26', '2005-01-27', '2005-01-28', '2005-01-31',
'2005-02-01', '2005-02-02', '2005-02-03', '2005-02-04', '2005-02-07',
'2005-02-08', '2005-02-09', '2005-02-10', '2005-02-11', '2005-02-14',
'2005-02-15', '2005-02-16', '2005-02-17', '2005-02-18', '2005-02-22',
'2005-02-23', '2005-02-24', '2005-02-25', '2005-02-28', '2005-03-01',
'2005-03-02', '2005-03-03', '2005-03-04', '2005-03-07', '2005-03-08',
'2005-03-09', '2005-03-10', '2005-03-11', '2005-03-14', '2005-03-15',

'2005-03-16', '2005-03-17', '2005-03-18', '2005-03-21', '2005-03-22',
'2005-03-23', '2005-03-24', '2005-03-28', '2005-03-29', '2005-03-30',
'2005-03-31', '2005-04-01', '2005-04-04', '2005-04-05', '2005-04-06',
'2005-04-07', '2005-04-08', '2005-04-11', '2005-04-12', '2005-04-13',
'2005-04-14', '2005-04-15', '2005-04-18', '2005-04-19', '2005-04-20',
'2005-04-21', '2005-04-22', '2005-04-25', '2005-04-26', '2005-04-27',
'2005-04-28', '2005-04-29', '2005-05-02', '2005-05-03', '2005-05-04',
'2005-05-05', '2005-05-06', '2005-05-09', '2005-05-10', '2005-05-11',
'2005-05-12', '2005-05-13', '2005-05-16', '2005-05-17', '2005-05-18',
'2005-05-19', '2005-05-20', '2005-05-23', '2005-05-24', '2005-05-25',
'2005-05-26', '2005-05-27', '2005-05-31', '2005-06-01', '2005-06-02',
'2005-06-03', '2005-06-06', '2005-06-07', '2005-06-08', '2005-06-09',
'2005-06-10', '2005-06-13', '2005-06-14', '2005-06-15', '2005-06-16',
'2005-06-17', '2005-06-20', '2005-06-21', '2005-06-22', '2005-06-23',
'2005-06-24', '2005-06-27', '2005-06-28', '2005-06-29', '2005-06-30',
'2005-07-01', '2005-07-05', '2005-07-06', '2005-07-07', '2005-07-08',
'2005-07-11', '2005-07-12', '2005-07-13', '2005-07-14', '2005-07-15',
'2005-07-18', '2005-07-19', '2005-07-20', '2005-07-21', '2005-07-22',
'2005-07-25', '2005-07-26', '2005-07-27', '2005-07-28', '2005-07-29',
'2005-08-01', '2005-08-02', '2005-08-03', '2005-08-04', '2005-08-05',
'2005-08-08', '2005-08-09', '2005-08-10', '2005-08-11', '2005-08-12',
'2005-08-15', '2005-08-16', '2005-08-17', '2005-08-18', '2005-08-19',
'2005-08-22', '2005-08-23', '2005-08-24', '2005-08-25', '2005-08-26',
'2005-08-29', '2005-08-30', '2005-08-31', '2005-09-01', '2005-09-02',
'2005-09-06', '2005-09-07', '2005-09-08', '2005-09-09', '2005-09-12',
'2005-09-13', '2005-09-14', '2005-09-15', '2005-09-16', '2005-09-19',
'2005-09-20', '2005-09-21', '2005-09-22', '2005-09-23', '2005-09-26',
'2005-09-27', '2005-09-28', '2005-09-29', '2005-09-30', '2005-10-03',
'2005-10-04', '2005-10-05', '2005-10-06', '2005-10-07', '2005-10-10',
'2005-10-11', '2005-10-12', '2005-10-13', '2005-10-14', '2005-10-17',
'2005-10-18', '2005-10-19', '2005-10-20', '2005-10-21', '2005-10-24',
'2005-10-25', '2005-10-26', '2005-10-27', '2005-10-28', '2005-10-31',
'2005-11-01', '2005-11-02', '2005-11-03', '2005-11-04', '2005-11-07',
'2005-11-08', '2005-11-09', '2005-11-10', '2005-11-11', '2005-11-14',
'2005-11-15', '2005-11-16', '2005-11-17', '2005-11-18', '2005-11-21',
'2005-11-22', '2005-11-23', '2005-11-25', '2005-11-28', '2005-11-29',
'2005-11-30', '2005-12-01', '2005-12-02', '2005-12-05', '2005-12-06',
'2005-12-07', '2005-12-08', '2005-12-09', '2005-12-12', '2005-12-13',
'2005-12-14', '2005-12-15', '2005-12-16', '2005-12-19', '2005-12-20',
'2005-12-21', '2005-12-22', '2005-12-23', '2005-12-27', '2005-12-28',
'2005-12-29', '2005-12-30', '2006-01-03', '2006-01-04', '2006-01-05',
'2006-01-06', '2006-01-09', '2006-01-10', '2006-01-11', '2006-01-12',
'2006-01-13', '2006-01-17', '2006-01-18', '2006-01-19', '2006-01-20',
'2006-01-23', '2006-01-24', '2006-01-25', '2006-01-26', '2006-01-27',
'2006-01-30', '2006-01-31', '2006-02-01', '2006-02-02', '2006-02-03',
'2006-02-06', '2006-02-07', '2006-02-08', '2006-02-09', '2006-02-10',
'2006-02-13', '2006-02-14', '2006-02-15', '2006-02-16', '2006-02-17',
'2006-02-21', '2006-02-22', '2006-02-23', '2006-02-24', '2006-02-27',
'2006-02-28', '2006-03-01', '2006-03-02', '2006-03-03', '2006-03-06',
'2006-03-07', '2006-03-08', '2006-03-09', '2006-03-10', '2006-03-13',
'2006-03-14', '2006-03-15', '2006-03-16', '2006-03-17', '2006-03-20',
'2006-03-21', '2006-03-22', '2006-03-23', '2006-03-24', '2006-03-27',
'2006-03-28', '2006-03-29', '2006-03-30', '2006-03-31', '2006-04-03',
'2006-04-04', '2006-04-05', '2006-04-06', '2006-04-07', '2006-04-10',
'2006-04-11', '2006-04-12', '2006-04-13', '2006-04-17', '2006-04-18',
'2006-04-19', '2006-04-20', '2006-04-21', '2006-04-24', '2006-04-25',
'2006-04-26', '2006-04-27', '2006-04-28', '2006-05-01', '2006-05-02',

'2006-05-03', '2006-05-04', '2006-05-05', '2006-05-08', '2006-05-09',
'2006-05-10', '2006-05-11', '2006-05-12', '2006-05-15', '2006-05-16',
'2006-05-17', '2006-05-18', '2006-05-19', '2006-05-22', '2006-05-23',
'2006-05-24', '2006-05-25', '2006-05-26', '2006-05-30', '2006-05-31',
'2006-06-01', '2006-06-02', '2006-06-05', '2006-06-06', '2006-06-07',
'2006-06-08', '2006-06-09', '2006-06-12', '2006-06-13', '2006-06-14',
'2006-06-15', '2006-06-16', '2006-06-19', '2006-06-20', '2006-06-21',
'2006-06-22', '2006-06-23', '2006-06-26', '2006-06-27', '2006-06-28',
'2006-06-29', '2006-06-30', '2006-07-03', '2006-07-05', '2006-07-06',
'2006-07-07', '2006-07-10', '2006-07-11', '2006-07-12', '2006-07-13',
'2006-07-14', '2006-07-17', '2006-07-18', '2006-07-19', '2006-07-20',
'2006-07-21', '2006-07-24', '2006-07-25', '2006-07-26', '2006-07-27',
'2006-07-28', '2006-07-31', '2006-08-01', '2006-08-02', '2006-08-03',
'2006-08-04', '2006-08-07', '2006-08-08', '2006-08-09', '2006-08-10',
'2006-08-11', '2006-08-14', '2006-08-15', '2006-08-16', '2006-08-17',
'2006-08-18', '2006-08-21', '2006-08-22', '2006-08-23', '2006-08-24',
'2006-08-25', '2006-08-28', '2006-08-29', '2006-08-30', '2006-08-31',
'2006-09-01', '2006-09-05', '2006-09-06', '2006-09-07', '2006-09-08',
'2006-09-11', '2006-09-12', '2006-09-13', '2006-09-14', '2006-09-15',
'2006-09-18', '2006-09-19', '2006-09-20', '2006-09-21', '2006-09-22',
'2006-09-25', '2006-09-26', '2006-09-27', '2006-09-28', '2006-09-29',
'2006-10-02', '2006-10-03', '2006-10-04', '2006-10-05', '2006-10-06',
'2006-10-09', '2006-10-10', '2006-10-11', '2006-10-12', '2006-10-13',
'2006-10-16', '2006-10-17', '2006-10-18', '2006-10-19', '2006-10-20',
'2006-10-23', '2006-10-24', '2006-10-25', '2006-10-26', '2006-10-27',
'2006-10-30', '2006-10-31', '2006-11-01', '2006-11-02', '2006-11-03',
'2006-11-06', '2006-11-07', '2006-11-08', '2006-11-09', '2006-11-10',
'2006-11-13', '2006-11-14', '2006-11-15', '2006-11-16', '2006-11-17',
'2006-11-20', '2006-11-21', '2006-11-22', '2006-11-24', '2006-11-27',
'2006-11-28', '2006-11-29', '2006-11-30', '2006-12-01', '2006-12-04',
'2006-12-05', '2006-12-06', '2006-12-07', '2006-12-08', '2006-12-11',
'2006-12-12', '2006-12-13', '2006-12-14', '2006-12-15', '2006-12-18',
'2006-12-19', '2006-12-20', '2006-12-21', '2006-12-22', '2006-12-26',
'2006-12-27', '2006-12-28', '2006-12-29', '2007-01-03', '2007-01-04',
'2007-01-05', '2007-01-08', '2007-01-09', '2007-01-10', '2007-01-11',
'2007-01-12', '2007-01-16', '2007-01-17', '2007-01-18', '2007-01-19',
'2007-01-22', '2007-01-23', '2007-01-24', '2007-01-25', '2007-01-26',
'2007-01-29', '2007-01-30', '2007-01-31', '2007-02-01', '2007-02-02',
'2007-02-05', '2007-02-06', '2007-02-07', '2007-02-08', '2007-02-09',
'2007-02-12', '2007-02-13', '2007-02-14', '2007-02-15', '2007-02-16',
'2007-02-20', '2007-02-21', '2007-02-22', '2007-02-23', '2007-02-26',
'2007-02-27', '2007-02-28', '2007-03-01', '2007-03-02', '2007-03-05',
'2007-03-06', '2007-03-07', '2007-03-08', '2007-03-09', '2007-03-12',
'2007-03-13', '2007-03-14', '2007-03-15', '2007-03-16', '2007-03-19',
'2007-03-20', '2007-03-21', '2007-03-22', '2007-03-23', '2007-03-26',
'2007-03-27', '2007-03-28', '2007-03-29', '2007-03-30', '2007-04-02',
'2007-04-03', '2007-04-04', '2007-04-05', '2007-04-09', '2007-04-10',
'2007-04-11', '2007-04-12', '2007-04-13', '2007-04-16', '2007-04-17',
'2007-04-18', '2007-04-19', '2007-04-20', '2007-04-23', '2007-04-24',
'2007-04-25', '2007-04-26', '2007-04-27', '2007-04-30', '2007-05-01',
'2007-05-02', '2007-05-03', '2007-05-04', '2007-05-07', '2007-05-08',
'2007-05-09', '2007-05-10', '2007-05-11', '2007-05-14', '2007-05-15',
'2007-05-16', '2007-05-17', '2007-05-18', '2007-05-21', '2007-05-22',
'2007-05-23', '2007-05-24', '2007-05-25', '2007-05-29', '2007-05-30',
'2007-05-31', '2007-06-01', '2007-06-04', '2007-06-05', '2007-06-06',
'2007-06-07', '2007-06-08', '2007-06-11', '2007-06-12', '2007-06-13',
'2007-06-14', '2007-06-15', '2007-06-18', '2007-06-19', '2007-06-20',

'2007-06-21', '2007-06-22', '2007-06-25', '2007-06-26', '2007-06-27',
'2007-06-28', '2007-06-29', '2007-07-02', '2007-07-03', '2007-07-05',
'2007-07-06', '2007-07-09', '2007-07-10', '2007-07-11', '2007-07-12',
'2007-07-13', '2007-07-16', '2007-07-17', '2007-07-18', '2007-07-19',
'2007-07-20', '2007-07-23', '2007-07-24', '2007-07-25', '2007-07-26',
'2007-07-27', '2007-07-30', '2007-07-31', '2007-08-01', '2007-08-02',
'2007-08-03', '2007-08-06', '2007-08-07', '2007-08-08', '2007-08-09',
'2007-08-10', '2007-08-13', '2007-08-14', '2007-08-15', '2007-08-16',
'2007-08-17', '2007-08-20', '2007-08-21', '2007-08-22', '2007-08-23',
'2007-08-24', '2007-08-27', '2007-08-28', '2007-08-29', '2007-08-30',
'2007-08-31', '2007-09-04', '2007-09-05', '2007-09-06', '2007-09-07',
'2007-09-10', '2007-09-11', '2007-09-12', '2007-09-13', '2007-09-14',
'2007-09-17', '2007-09-18', '2007-09-19', '2007-09-20', '2007-09-21',
'2007-09-24', '2007-09-25', '2007-09-26', '2007-09-27', '2007-09-28',
'2007-10-01', '2007-10-02', '2007-10-03', '2007-10-04', '2007-10-05',
'2007-10-08', '2007-10-09', '2007-10-10', '2007-10-11', '2007-10-12',
'2007-10-15', '2007-10-16', '2007-10-17', '2007-10-18', '2007-10-19',
'2007-10-22', '2007-10-23', '2007-10-24', '2007-10-25', '2007-10-26',
'2007-10-29', '2007-10-30', '2007-10-31', '2007-11-01', '2007-11-02',
'2007-11-05', '2007-11-06', '2007-11-07', '2007-11-08', '2007-11-09',
'2007-11-12', '2007-11-13', '2007-11-14', '2007-11-15', '2007-11-16',
'2007-11-19', '2007-11-20', '2007-11-21', '2007-11-23', '2007-11-26',
'2007-11-27', '2007-11-28', '2007-11-29', '2007-11-30', '2007-12-03',
'2007-12-04', '2007-12-05', '2007-12-06', '2007-12-07', '2007-12-10',
'2007-12-11', '2007-12-12', '2007-12-13', '2007-12-14', '2007-12-17',
'2007-12-18', '2007-12-19', '2007-12-20', '2007-12-21', '2007-12-24',
'2007-12-26', '2007-12-27', '2007-12-28', '2007-12-31', '2008-01-02',
'2008-01-03', '2008-01-04', '2008-01-07', '2008-01-08', '2008-01-09',
'2008-01-10', '2008-01-11', '2008-01-14', '2008-01-15', '2008-01-16',
'2008-01-17', '2008-01-18', '2008-01-22', '2008-01-23', '2008-01-24',
'2008-01-25', '2008-01-28', '2008-01-29', '2008-01-30', '2008-01-31',
'2008-02-01', '2008-02-04', '2008-02-05', '2008-02-06', '2008-02-07',
'2008-02-08', '2008-02-11', '2008-02-12', '2008-02-13', '2008-02-14',
'2008-02-15', '2008-02-19', '2008-02-20', '2008-02-21', '2008-02-22',
'2008-02-25', '2008-02-26', '2008-02-27', '2008-02-28', '2008-02-29',
'2008-03-03', '2008-03-04', '2008-03-05', '2008-03-06', '2008-03-07',
'2008-03-10', '2008-03-11', '2008-03-12', '2008-03-13', '2008-03-14',
'2008-03-17', '2008-03-18', '2008-03-19', '2008-03-20', '2008-03-24',
'2008-03-25', '2008-03-26', '2008-03-27', '2008-03-28', '2008-03-31',
'2008-04-01', '2008-04-02', '2008-04-03', '2008-04-04', '2008-04-07',
'2008-04-08', '2008-04-09', '2008-04-10', '2008-04-11', '2008-04-14',
'2008-04-15', '2008-04-16', '2008-04-17', '2008-04-18', '2008-04-21',
'2008-04-22', '2008-04-23', '2008-04-24', '2008-04-25', '2008-04-28',
'2008-04-29', '2008-04-30', '2008-05-01', '2008-05-02', '2008-05-05',
'2008-05-06', '2008-05-07', '2008-05-08', '2008-05-09', '2008-05-12',
'2008-05-13', '2008-05-14', '2008-05-15', '2008-05-16', '2008-05-19',
'2008-05-20', '2008-05-21', '2008-05-22', '2008-05-23', '2008-05-27',
'2008-05-28', '2008-05-29', '2008-05-30', '2008-06-02', '2008-06-03',
'2008-06-04', '2008-06-05', '2008-06-06', '2008-06-09', '2008-06-10',
'2008-06-11', '2008-06-12', '2008-06-13', '2008-06-16', '2008-06-17',
'2008-06-18', '2008-06-19', '2008-06-20', '2008-06-23', '2008-06-24',
'2008-06-25', '2008-06-26', '2008-06-27', '2008-06-30', '2008-07-01',
'2008-07-02', '2008-07-03', '2008-07-07', '2008-07-08', '2008-07-09',
'2008-07-10', '2008-07-11', '2008-07-14', '2008-07-15', '2008-07-16',
'2008-07-17', '2008-07-18', '2008-07-21', '2008-07-22', '2008-07-23',
'2008-07-24', '2008-07-25', '2008-07-28', '2008-07-29', '2008-07-30',
'2008-07-31', '2008-08-01', '2008-08-04', '2008-08-05', '2008-08-06',

'2008-08-07', '2008-08-08', '2008-08-11', '2008-08-12', '2008-08-13',
'2008-08-14', '2008-08-15', '2008-08-18', '2008-08-19', '2008-08-20',
'2008-08-21', '2008-08-22', '2008-08-25', '2008-08-26', '2008-08-27',
'2008-08-28', '2008-08-29', '2008-09-02', '2008-09-03', '2008-09-04',
'2008-09-05', '2008-09-08', '2008-09-09', '2008-09-10', '2008-09-11',
'2008-09-12', '2008-09-15', '2008-09-16', '2008-09-17', '2008-09-18',
'2008-09-19', '2008-09-22', '2008-09-23', '2008-09-24', '2008-09-25',
'2008-09-26', '2008-09-29', '2008-09-30', '2008-10-01', '2008-10-02',
'2008-10-03', '2008-10-06', '2008-10-07', '2008-10-08', '2008-10-09',
'2008-10-10', '2008-10-13', '2008-10-14', '2008-10-15', '2008-10-16',
'2008-10-17', '2008-10-20', '2008-10-21', '2008-10-22', '2008-10-23',
'2008-10-24', '2008-10-27', '2008-10-28', '2008-10-29', '2008-10-30',
'2008-10-31', '2008-11-03', '2008-11-04', '2008-11-05', '2008-11-06',
'2008-11-07', '2008-11-10', '2008-11-11', '2008-11-12', '2008-11-13',
'2008-11-14', '2008-11-17', '2008-11-18', '2008-11-19', '2008-11-20',
'2008-11-21', '2008-11-24', '2008-11-25', '2008-11-26', '2008-11-28',
'2008-12-01', '2008-12-02', '2008-12-03', '2008-12-04', '2008-12-05',
'2008-12-08', '2008-12-09', '2008-12-10', '2008-12-11', '2008-12-12',
'2008-12-15', '2008-12-16', '2008-12-17', '2008-12-18', '2008-12-19',
'2008-12-22', '2008-12-23', '2008-12-24', '2008-12-26', '2008-12-29',
'2008-12-30', '2008-12-31', '2009-01-02', '2009-01-05', '2009-01-06',
'2009-01-07', '2009-01-08', '2009-01-09', '2009-01-12', '2009-01-13',
'2009-01-14', '2009-01-15', '2009-01-16', '2009-01-20', '2009-01-21',
'2009-01-22', '2009-01-23', '2009-01-26', '2009-01-27', '2009-01-28',
'2009-01-29', '2009-01-30', '2009-02-02', '2009-02-03', '2009-02-04',
'2009-02-05', '2009-02-06', '2009-02-09', '2009-02-10', '2009-02-11',
'2009-02-12', '2009-02-13', '2009-02-17', '2009-02-18', '2009-02-19',
'2009-02-20', '2009-02-23', '2009-02-24', '2009-02-25', '2009-02-26',
'2009-02-27', '2009-03-02', '2009-03-03', '2009-03-04', '2009-03-05',
'2009-03-06', '2009-03-09', '2009-03-10', '2009-03-11', '2009-03-12',
'2009-03-13', '2009-03-16', '2009-03-17', '2009-03-18', '2009-03-19',
'2009-03-20', '2009-03-23', '2009-03-24', '2009-03-25', '2009-03-26',
'2009-03-27', '2009-03-30', '2009-03-31', '2009-04-01', '2009-04-02',
'2009-04-03', '2009-04-06', '2009-04-07', '2009-04-08', '2009-04-09',
'2009-04-13', '2009-04-14', '2009-04-15', '2009-04-16', '2009-04-17',
'2009-04-20', '2009-04-21', '2009-04-22', '2009-04-23', '2009-04-24',
'2009-04-27', '2009-04-28', '2009-04-29', '2009-04-30', '2009-05-01',
'2009-05-04', '2009-05-05', '2009-05-06', '2009-05-07', '2009-05-08',
'2009-05-11', '2009-05-12', '2009-05-13', '2009-05-14', '2009-05-15',
'2009-05-18', '2009-05-19', '2009-05-20', '2009-05-21', '2009-05-22',
'2009-05-26', '2009-05-27', '2009-05-28', '2009-05-29', '2009-06-01',
'2009-06-02', '2009-06-03', '2009-06-04', '2009-06-05', '2009-06-08',
'2009-06-09', '2009-06-10', '2009-06-11', '2009-06-12', '2009-06-15',
'2009-06-16', '2009-06-17', '2009-06-18', '2009-06-19', '2009-06-22',
'2009-06-23', '2009-06-24', '2009-06-25', '2009-06-26', '2009-06-29',
'2009-06-30', '2009-07-01', '2009-07-02', '2009-07-06', '2009-07-07',
'2009-07-08', '2009-07-09', '2009-07-10', '2009-07-13', '2009-07-14',
'2009-07-15', '2009-07-16', '2009-07-17', '2009-07-20', '2009-07-21',
'2009-07-22', '2009-07-23', '2009-07-24', '2009-07-27', '2009-07-28',
'2009-07-29', '2009-07-30', '2009-07-31', '2009-08-03', '2009-08-04',
'2009-08-05', '2009-08-06', '2009-08-07', '2009-08-10', '2009-08-11',
'2009-08-12', '2009-08-13', '2009-08-14', '2009-08-17', '2009-08-18',
'2009-08-19', '2009-08-20', '2009-08-21', '2009-08-24', '2009-08-25',
'2009-08-26', '2009-08-27', '2009-08-28', '2009-08-31', '2009-09-01',
'2009-09-02', '2009-09-03', '2009-09-04', '2009-09-08', '2009-09-09',
'2009-09-10', '2009-09-11', '2009-09-14', '2009-09-15', '2009-09-16',
'2009-09-17', '2009-09-18', '2009-09-21', '2009-09-22', '2009-09-23',

'2009-09-24', '2009-09-25', '2009-09-28', '2009-09-29', '2009-09-30',
'2009-10-01', '2009-10-02', '2009-10-05', '2009-10-06', '2009-10-07',
'2009-10-08', '2009-10-09', '2009-10-12', '2009-10-13', '2009-10-14',
'2009-10-15', '2009-10-16', '2009-10-19', '2009-10-20', '2009-10-21',
'2009-10-22', '2009-10-23', '2009-10-26', '2009-10-27', '2009-10-28',
'2009-10-29', '2009-10-30', '2009-11-02', '2009-11-03', '2009-11-04',
'2009-11-05', '2009-11-06', '2009-11-09', '2009-11-10', '2009-11-11',
'2009-11-12', '2009-11-13', '2009-11-16', '2009-11-17', '2009-11-18',
'2009-11-19', '2009-11-20', '2009-11-23', '2009-11-24', '2009-11-25',
'2009-11-27', '2009-11-30', '2009-12-01', '2009-12-02', '2009-12-03',
'2009-12-04', '2009-12-07', '2009-12-08', '2009-12-09', '2009-12-10',
'2009-12-11', '2009-12-14', '2009-12-15', '2009-12-16', '2009-12-17',
'2009-12-18', '2009-12-21', '2009-12-22', '2009-12-23', '2009-12-24',
'2009-12-28', '2009-12-29', '2009-12-30', '2009-12-31', '2010-01-04',
'2010-01-05', '2010-01-06', '2010-01-07', '2010-01-08', '2010-01-11',
'2010-01-12', '2010-01-13', '2010-01-14', '2010-01-15', '2010-01-19',
'2010-01-20', '2010-01-21', '2010-01-22', '2010-01-25', '2010-01-26',
'2010-01-27', '2010-01-28', '2010-01-29', '2010-02-01', '2010-02-02',
'2010-02-03', '2010-02-04', '2010-02-05', '2010-02-08', '2010-02-09',
'2010-02-10', '2010-02-11', '2010-02-12', '2010-02-16', '2010-02-17',
'2010-02-18', '2010-02-19', '2010-02-22', '2010-02-23', '2010-02-24',
'2010-02-25', '2010-02-26', '2010-03-01', '2010-03-02', '2010-03-03',
'2010-03-04', '2010-03-05', '2010-03-08', '2010-03-09', '2010-03-10',
'2010-03-11', '2010-03-12', '2010-03-15', '2010-03-16', '2010-03-17',
'2010-03-18', '2010-03-19', '2010-03-22', '2010-03-23', '2010-03-24',
'2010-03-25', '2010-03-26', '2010-03-29', '2010-03-30', '2010-03-31',
'2010-04-01', '2010-04-05', '2010-04-06', '2010-04-07', '2010-04-08',
'2010-04-09', '2010-04-12', '2010-04-13', '2010-04-14', '2010-04-15',
'2010-04-16', '2010-04-19', '2010-04-20', '2010-04-21', '2010-04-22',
'2010-04-23', '2010-04-26', '2010-04-27', '2010-04-28', '2010-04-29',
'2010-04-30', '2010-05-03', '2010-05-04', '2010-05-05', '2010-05-06',
'2010-05-07', '2010-05-10', '2010-05-11', '2010-05-12', '2010-05-13',
'2010-05-14', '2010-05-17', '2010-05-18', '2010-05-19', '2010-05-20',
'2010-05-21', '2010-05-24', '2010-05-25', '2010-05-26', '2010-05-27',
'2010-05-28', '2010-06-01', '2010-06-02', '2010-06-03', '2010-06-04',
'2010-06-07', '2010-06-08', '2010-06-09', '2010-06-10', '2010-06-11',
'2010-06-14', '2010-06-15', '2010-06-16', '2010-06-17', '2010-06-18',
'2010-06-21', '2010-06-22', '2010-06-23', '2010-06-24', '2010-06-25',
'2010-06-28', '2010-06-29', '2010-06-30', '2010-07-01', '2010-07-02',
'2010-07-06', '2010-07-07', '2010-07-08', '2010-07-09', '2010-07-12',
'2010-07-13', '2010-07-14', '2010-07-15', '2010-07-16', '2010-07-19',
'2010-07-20', '2010-07-21', '2010-07-22', '2010-07-23', '2010-07-26',
'2010-07-27', '2010-07-28', '2010-07-29', '2010-07-30', '2010-08-02',
'2010-08-03', '2010-08-04', '2010-08-05', '2010-08-06', '2010-08-09',
'2010-08-10', '2010-08-11', '2010-08-12', '2010-08-13', '2010-08-16',
'2010-08-17', '2010-08-18', '2010-08-19', '2010-08-20', '2010-08-23',
'2010-08-24', '2010-08-25', '2010-08-26', '2010-08-27', '2010-08-30',
'2010-08-31', '2010-09-01', '2010-09-02', '2010-09-03', '2010-09-07',
'2010-09-08', '2010-09-09', '2010-09-10', '2010-09-13', '2010-09-14',
'2010-09-15', '2010-09-16', '2010-09-17', '2010-09-20', '2010-09-21',
'2010-09-22', '2010-09-23', '2010-09-24', '2010-09-27', '2010-09-28',
'2010-09-29', '2010-09-30', '2010-10-01', '2010-10-04', '2010-10-05',
'2010-10-06', '2010-10-07', '2010-10-08', '2010-10-11', '2010-10-12',
'2010-10-13', '2010-10-14', '2010-10-15', '2010-10-18', '2010-10-19',
'2010-10-20', '2010-10-21', '2010-10-22', '2010-10-25', '2010-10-26',
'2010-10-27', '2010-10-28', '2010-10-29', '2010-11-01', '2010-11-02',
'2010-11-03', '2010-11-04', '2010-11-05', '2010-11-08', '2010-11-09',

'2010-11-10', '2010-11-11', '2010-11-12', '2010-11-15', '2010-11-16',
'2010-11-17', '2010-11-18', '2010-11-19', '2010-11-22', '2010-11-23',
'2010-11-24', '2010-11-26', '2010-11-29', '2010-11-30', '2010-12-01',
'2010-12-02', '2010-12-03', '2010-12-06', '2010-12-07', '2010-12-08',
'2010-12-09', '2010-12-10', '2010-12-13', '2010-12-14', '2010-12-15',
'2010-12-16', '2010-12-17', '2010-12-20', '2010-12-21', '2010-12-22',
'2010-12-23', '2010-12-27', '2010-12-28', '2010-12-29', '2010-12-30',
'2010-12-31', '2011-01-03', '2011-01-04', '2011-01-05', '2011-01-06',
'2011-01-07', '2011-01-10', '2011-01-11', '2011-01-12', '2011-01-13',
'2011-01-14', '2011-01-18', '2011-01-19', '2011-01-20', '2011-01-21',
'2011-01-24', '2011-01-25', '2011-01-26', '2011-01-27', '2011-01-28',
'2011-01-31', '2011-02-01', '2011-02-02', '2011-02-03', '2011-02-04',
'2011-02-07', '2011-02-08', '2011-02-09', '2011-02-10', '2011-02-11',
'2011-02-14', '2011-02-15', '2011-02-16', '2011-02-17', '2011-02-18',
'2011-02-22', '2011-02-23', '2011-02-24', '2011-02-25', '2011-02-28',
'2011-03-01', '2011-03-02', '2011-03-03', '2011-03-04', '2011-03-07',
'2011-03-08', '2011-03-09', '2011-03-10', '2011-03-11', '2011-03-14',
'2011-03-15', '2011-03-16', '2011-03-17', '2011-03-18', '2011-03-21',
'2011-03-22', '2011-03-23', '2011-03-24', '2011-03-25', '2011-03-28',
'2011-03-29', '2011-03-30', '2011-03-31', '2011-04-01', '2011-04-04',
'2011-04-05', '2011-04-06', '2011-04-07', '2011-04-08', '2011-04-11',
'2011-04-12', '2011-04-13', '2011-04-14', '2011-04-15', '2011-04-18',
'2011-04-19', '2011-04-20', '2011-04-21', '2011-04-25', '2011-04-26',
'2011-04-27', '2011-04-28', '2011-04-29', '2011-05-02', '2011-05-03',
'2011-05-04', '2011-05-05', '2011-05-06', '2011-05-09', '2011-05-10',
'2011-05-11', '2011-05-12', '2011-05-13', '2011-05-16', '2011-05-17',
'2011-05-18', '2011-05-19', '2011-05-20', '2011-05-23', '2011-05-24',
'2011-05-25', '2011-05-26', '2011-05-27', '2011-05-31', '2011-06-01',
'2011-06-02', '2011-06-03', '2011-06-06', '2011-06-07', '2011-06-08',
'2011-06-09', '2011-06-10', '2011-06-13', '2011-06-14', '2011-06-15',
'2011-06-16', '2011-06-17', '2011-06-20', '2011-06-21', '2011-06-22',
'2011-06-23', '2011-06-24', '2011-06-27', '2011-06-28', '2011-06-29',
'2011-06-30', '2011-07-01', '2011-07-05', '2011-07-06', '2011-07-07',
'2011-07-08', '2011-07-11', '2011-07-12', '2011-07-13', '2011-07-14',
'2011-07-15', '2011-07-18', '2011-07-19', '2011-07-20', '2011-07-21',
'2011-07-22', '2011-07-25', '2011-07-26', '2011-07-27', '2011-07-28',
'2011-07-29', '2011-08-01', '2011-08-02', '2011-08-03', '2011-08-04',
'2011-08-05', '2011-08-08', '2011-08-09', '2011-08-10', '2011-08-11',
'2011-08-12', '2011-08-15', '2011-08-16', '2011-08-17', '2011-08-18',
'2011-08-19', '2011-08-22', '2011-08-23', '2011-08-24', '2011-08-25',
'2011-08-26', '2011-08-29', '2011-08-30', '2011-08-31', '2011-09-01',
'2011-09-02', '2011-09-06', '2011-09-07', '2011-09-08', '2011-09-09',
'2011-09-12', '2011-09-13', '2011-09-14', '2011-09-15', '2011-09-16',
'2011-09-19', '2011-09-20', '2011-09-21', '2011-09-22', '2011-09-23',
'2011-09-26', '2011-09-27', '2011-09-28', '2011-09-29', '2011-09-30',
'2011-10-03', '2011-10-04', '2011-10-05', '2011-10-06', '2011-10-07',
'2011-10-10', '2011-10-11', '2011-10-12', '2011-10-13', '2011-10-14',
'2011-10-17', '2011-10-18', '2011-10-19', '2011-10-20', '2011-10-21',
'2011-10-24', '2011-10-25', '2011-10-26', '2011-10-27', '2011-10-28',
'2011-10-31', '2011-11-01', '2011-11-02', '2011-11-03', '2011-11-04',
'2011-11-07', '2011-11-08', '2011-11-09', '2011-11-10', '2011-11-11',
'2011-11-14', '2011-11-15', '2011-11-16', '2011-11-17', '2011-11-18',
'2011-11-21', '2011-11-22', '2011-11-23', '2011-11-25', '2011-11-28',
'2011-11-29', '2011-11-30', '2011-12-01', '2011-12-02', '2011-12-05',
'2011-12-06', '2011-12-07', '2011-12-08', '2011-12-09', '2011-12-12',
'2011-12-13', '2011-12-14', '2011-12-15', '2011-12-16', '2011-12-19',
'2011-12-20', '2011-12-21', '2011-12-22', '2011-12-23', '2011-12-27',

'2011-12-28', '2011-12-29', '2011-12-30', '2012-01-03', '2012-01-04',
'2012-01-05', '2012-01-06', '2012-01-09', '2012-01-10', '2012-01-11',
'2012-01-12', '2012-01-13', '2012-01-17', '2012-01-18', '2012-01-19',
'2012-01-20', '2012-01-23', '2012-01-24', '2012-01-25', '2012-01-26',
'2012-01-27', '2012-01-30', '2012-01-31', '2012-02-01', '2012-02-02',
'2012-02-03', '2012-02-06', '2012-02-07', '2012-02-08', '2012-02-09',
'2012-02-10', '2012-02-13', '2012-02-14', '2012-02-15', '2012-02-16',
'2012-02-17', '2012-02-21', '2012-02-22', '2012-02-23', '2012-02-24',
'2012-02-27', '2012-02-28', '2012-02-29', '2012-03-01', '2012-03-02',
'2012-03-05', '2012-03-06', '2012-03-07', '2012-03-08', '2012-03-09',
'2012-03-12', '2012-03-13', '2012-03-14', '2012-03-15', '2012-03-16',
'2012-03-19', '2012-03-20', '2012-03-21', '2012-03-22', '2012-03-23',
'2012-03-26', '2012-03-27', '2012-03-28', '2012-03-29', '2012-03-30',
'2012-04-02', '2012-04-03', '2012-04-04', '2012-04-05', '2012-04-09',
'2012-04-10', '2012-04-11', '2012-04-12', '2012-04-13', '2012-04-16',
'2012-04-17', '2012-04-18', '2012-04-19', '2012-04-20', '2012-04-23',
'2012-04-24', '2012-04-25', '2012-04-26', '2012-04-27', '2012-04-30',
'2012-05-01', '2012-05-02', '2012-05-03', '2012-05-04', '2012-05-07',
'2012-05-08', '2012-05-09', '2012-05-10', '2012-05-11', '2012-05-14',
'2012-05-15', '2012-05-16', '2012-05-17', '2012-05-18', '2012-05-21',
'2012-05-22', '2012-05-23', '2012-05-24', '2012-05-25', '2012-05-29',
'2012-05-30', '2012-05-31', '2012-06-01', '2012-06-04', '2012-06-05',
'2012-06-06', '2012-06-07', '2012-06-08', '2012-06-11', '2012-06-12',
'2012-06-13', '2012-06-14', '2012-06-15', '2012-06-18', '2012-06-19',
'2012-06-20', '2012-06-21', '2012-06-22', '2012-06-25', '2012-06-26',
'2012-06-27', '2012-06-28', '2012-06-29', '2012-07-02', '2012-07-03',
'2012-07-05', '2012-07-06', '2012-07-09', '2012-07-10', '2012-07-11',
'2012-07-12', '2012-07-13', '2012-07-16', '2012-07-17', '2012-07-18',
'2012-07-19', '2012-07-20', '2012-07-23', '2012-07-24', '2012-07-25',
'2012-07-26', '2012-07-27', '2012-07-30', '2012-07-31', '2012-08-01',
'2012-08-02', '2012-08-03', '2012-08-06', '2012-08-07', '2012-08-08',
'2012-08-09', '2012-08-10', '2012-08-13', '2012-08-14', '2012-08-15',
'2012-08-16', '2012-08-17', '2012-08-20', '2012-08-21', '2012-08-22',
'2012-08-23', '2012-08-24', '2012-08-27', '2012-08-28', '2012-08-29',
'2012-08-30', '2012-08-31', '2012-09-04', '2012-09-05', '2012-09-06',
'2012-09-07', '2012-09-10', '2012-09-11', '2012-09-12', '2012-09-13',
'2012-09-14', '2012-09-17', '2012-09-18', '2012-09-19', '2012-09-20',
'2012-09-21', '2012-09-24', '2012-09-25', '2012-09-26', '2012-09-27',
'2012-09-28', '2012-10-01', '2012-10-02', '2012-10-03', '2012-10-04',
'2012-10-05', '2012-10-08', '2012-10-09', '2012-10-10', '2012-10-11',
'2012-10-12', '2012-10-15', '2012-10-16', '2012-10-17', '2012-10-18',
'2012-10-19', '2012-10-22', '2012-10-23', '2012-10-24', '2012-10-25',
'2012-10-26', '2012-10-31', '2012-11-01', '2012-11-02', '2012-11-05',
'2012-11-06', '2012-11-07', '2012-11-08', '2012-11-09', '2012-11-12',
'2012-11-13', '2012-11-14', '2012-11-15', '2012-11-16', '2012-11-19',
'2012-11-20', '2012-11-21', '2012-11-23', '2012-11-26', '2012-11-27',
'2012-11-28', '2012-11-29', '2012-11-30', '2012-12-03', '2012-12-04',
'2012-12-05', '2012-12-06', '2012-12-07', '2012-12-10', '2012-12-11',
'2012-12-12', '2012-12-13', '2012-12-14', '2012-12-17', '2012-12-18',
'2012-12-19', '2012-12-20', '2012-12-21', '2012-12-24', '2012-12-26',
'2012-12-27', '2012-12-28', '2012-12-31', '2013-01-02', '2013-01-03',
'2013-01-04', '2013-01-07', '2013-01-08', '2013-01-09', '2013-01-10',
'2013-01-11', '2013-01-14', '2013-01-15', '2013-01-16', '2013-01-17',
'2013-01-18', '2013-01-22', '2013-01-23', '2013-01-24', '2013-01-25',
'2013-01-28', '2013-01-29', '2013-01-30', '2013-01-31', '2013-02-01',
'2013-02-04', '2013-02-05', '2013-02-06', '2013-02-07', '2013-02-08',
'2013-02-11', '2013-02-12', '2013-02-13', '2013-02-14', '2013-02-15',

'2013-02-19', '2013-02-20', '2013-02-21', '2013-02-22', '2013-02-25',
'2013-02-26', '2013-02-27', '2013-02-28', '2013-03-01', '2013-03-04',
'2013-03-05', '2013-03-06', '2013-03-07', '2013-03-08', '2013-03-11',
'2013-03-12', '2013-03-13', '2013-03-14', '2013-03-15', '2013-03-18',
'2013-03-19', '2013-03-20', '2013-03-21', '2013-03-22', '2013-03-25',
'2013-03-26', '2013-03-27', '2013-03-28', '2013-04-01', '2013-04-02',
'2013-04-03', '2013-04-04', '2013-04-05', '2013-04-08', '2013-04-09',
'2013-04-10', '2013-04-11', '2013-04-12', '2013-04-15', '2013-04-16',
'2013-04-17', '2013-04-18', '2013-04-19', '2013-04-22', '2013-04-23',
'2013-04-24', '2013-04-25', '2013-04-26', '2013-04-29', '2013-04-30',
'2013-05-01', '2013-05-02', '2013-05-03', '2013-05-06', '2013-05-07',
'2013-05-08', '2013-05-09', '2013-05-10', '2013-05-13', '2013-05-14',
'2013-05-15', '2013-05-16', '2013-05-17', '2013-05-20', '2013-05-21',
'2013-05-22', '2013-05-23', '2013-05-24', '2013-05-28', '2013-05-29',
'2013-05-30', '2013-05-31', '2013-06-03', '2013-06-04', '2013-06-05',
'2013-06-06', '2013-06-07', '2013-06-10', '2013-06-11', '2013-06-12',
'2013-06-13', '2013-06-14', '2013-06-17', '2013-06-18', '2013-06-19',
'2013-06-20', '2013-06-21', '2013-06-24', '2013-06-25', '2013-06-26',
'2013-06-27', '2013-06-28', '2013-07-01', '2013-07-02', '2013-07-03',
'2013-07-05', '2013-07-08', '2013-07-09', '2013-07-10', '2013-07-11',
'2013-07-12', '2013-07-15', '2013-07-16', '2013-07-17', '2013-07-18',
'2013-07-19', '2013-07-22', '2013-07-23', '2013-07-24', '2013-07-25',
'2013-07-26', '2013-07-29', '2013-07-30', '2013-07-31', '2013-08-01',
'2013-08-02', '2013-08-05', '2013-08-06', '2013-08-07', '2013-08-08',
'2013-08-09', '2013-08-12', '2013-08-13', '2013-08-14', '2013-08-15',
'2013-08-16', '2013-08-19', '2013-08-20', '2013-08-21', '2013-08-22',
'2013-08-23', '2013-08-26', '2013-08-27', '2013-08-28', '2013-08-29',
'2013-08-30', '2013-09-03', '2013-09-04', '2013-09-05', '2013-09-06',
'2013-09-09', '2013-09-10', '2013-09-11', '2013-09-12', '2013-09-13',
'2013-09-16', '2013-09-17', '2013-09-18', '2013-09-19', '2013-09-20',
'2013-09-23', '2013-09-24', '2013-09-25', '2013-09-26', '2013-09-27',
'2013-09-30', '2013-10-01', '2013-10-02', '2013-10-03', '2013-10-04',
'2013-10-07', '2013-10-08', '2013-10-09', '2013-10-10', '2013-10-11',
'2013-10-14', '2013-10-15', '2013-10-16', '2013-10-17', '2013-10-18',
'2013-10-21', '2013-10-22', '2013-10-23', '2013-10-24', '2013-10-25',
'2013-10-28', '2013-10-29', '2013-10-30', '2013-10-31', '2013-11-01',
'2013-11-04', '2013-11-05', '2013-11-06', '2013-11-07', '2013-11-08',
'2013-11-11', '2013-11-12', '2013-11-13', '2013-11-14', '2013-11-15',
'2013-11-18', '2013-11-19', '2013-11-20', '2013-11-21', '2013-11-22',
'2013-11-25', '2013-11-26', '2013-11-27', '2013-11-29', '2013-12-02',
'2013-12-03', '2013-12-04', '2013-12-05', '2013-12-06', '2013-12-09',
'2013-12-10', '2013-12-11', '2013-12-12', '2013-12-13', '2013-12-16',
'2013-12-17', '2013-12-18', '2013-12-19', '2013-12-20', '2013-12-23',
'2013-12-24', '2013-12-26', '2013-12-27', '2013-12-30', '2013-12-31',
'2014-01-02', '2014-01-03', '2014-01-06', '2014-01-07', '2014-01-08',
'2014-01-09', '2014-01-10', '2014-01-13', '2014-01-14', '2014-01-15',
'2014-01-16', '2014-01-17', '2014-01-21', '2014-01-22', '2014-01-23',
'2014-01-24', '2014-01-27', '2014-01-28', '2014-01-29', '2014-01-30',
'2014-01-31', '2014-02-03', '2014-02-04', '2014-02-05', '2014-02-06',
'2014-02-07', '2014-02-10', '2014-02-11', '2014-02-12', '2014-02-13',
'2014-02-14', '2014-02-18', '2014-02-19', '2014-02-20', '2014-02-21',
'2014-02-24', '2014-02-25', '2014-02-26', '2014-02-27', '2014-02-28',
'2014-03-03', '2014-03-04', '2014-03-05', '2014-03-06', '2014-03-07',
'2014-03-10', '2014-03-11', '2014-03-12', '2014-03-13', '2014-03-14',
'2014-03-17', '2014-03-18', '2014-03-19', '2014-03-20', '2014-03-21',
'2014-03-24', '2014-03-25', '2014-03-26', '2014-03-27', '2014-03-28',
'2014-03-31', '2014-04-01', '2014-04-02', '2014-04-03', '2014-04-04',

'2014-04-07', '2014-04-08', '2014-04-09', '2014-04-10', '2014-04-11',
'2014-04-14', '2014-04-15', '2014-04-16', '2014-04-17', '2014-04-21',
'2014-04-22', '2014-04-23', '2014-04-24', '2014-04-25', '2014-04-28',
'2014-04-29', '2014-04-30', '2014-05-01', '2014-05-02', '2014-05-05',
'2014-05-06', '2014-05-07', '2014-05-08', '2014-05-09', '2014-05-12',
'2014-05-13', '2014-05-14', '2014-05-15', '2014-05-16', '2014-05-19',
'2014-05-20', '2014-05-21', '2014-05-22', '2014-05-23', '2014-05-27',
'2014-05-28', '2014-05-29', '2014-05-30', '2014-06-02', '2014-06-03',
'2014-06-04', '2014-06-05', '2014-06-06', '2014-06-09', '2014-06-10',
'2014-06-11', '2014-06-12', '2014-06-13', '2014-06-16', '2014-06-17',
'2014-06-18', '2014-06-19', '2014-06-20', '2014-06-23', '2014-06-24',
'2014-06-25', '2014-06-26', '2014-06-27', '2014-06-30', '2014-07-01',
'2014-07-02', '2014-07-03', '2014-07-07', '2014-07-08', '2014-07-09',
'2014-07-10', '2014-07-11', '2014-07-14', '2014-07-15', '2014-07-16',
'2014-07-17', '2014-07-18', '2014-07-21', '2014-07-22', '2014-07-23',
'2014-07-24', '2014-07-25', '2014-07-28', '2014-07-29', '2014-07-30',
'2014-07-31', '2014-08-01', '2014-08-04', '2014-08-05', '2014-08-06',
'2014-08-07', '2014-08-08', '2014-08-11', '2014-08-12', '2014-08-13',
'2014-08-14', '2014-08-15', '2014-08-18', '2014-08-19', '2014-08-20',
'2014-08-21', '2014-08-22', '2014-08-25', '2014-08-26', '2014-08-27',
'2014-08-28', '2014-08-29', '2014-09-02', '2014-09-03', '2014-09-04',
'2014-09-05', '2014-09-08', '2014-09-09', '2014-09-10', '2014-09-11',
'2014-09-12', '2014-09-15', '2014-09-16', '2014-09-17', '2014-09-18',
'2014-09-19', '2014-09-22', '2014-09-23', '2014-09-24', '2014-09-25',
'2014-09-26', '2014-09-29', '2014-09-30', '2014-10-01', '2014-10-02',
'2014-10-03', '2014-10-06', '2014-10-07', '2014-10-08', '2014-10-09',
'2014-10-10', '2014-10-13', '2014-10-14', '2014-10-15', '2014-10-16',
'2014-10-17', '2014-10-20', '2014-10-21', '2014-10-22', '2014-10-23',
'2014-10-24', '2014-10-27', '2014-10-28', '2014-10-29', '2014-10-30',
'2014-10-31', '2014-11-03', '2014-11-04', '2014-11-05', '2014-11-06',
'2014-11-07', '2014-11-10', '2014-11-11', '2014-11-12', '2014-11-13',
'2014-11-14', '2014-11-17', '2014-11-18', '2014-11-19', '2014-11-20',
'2014-11-21', '2014-11-24', '2014-11-25', '2014-11-26', '2014-11-28',
'2014-12-01', '2014-12-02', '2014-12-03', '2014-12-04', '2014-12-05',
'2014-12-08', '2014-12-09', '2014-12-10', '2014-12-11', '2014-12-12',
'2014-12-15', '2014-12-16', '2014-12-17', '2014-12-18', '2014-12-19',
'2014-12-22', '2014-12-23', '2014-12-24', '2014-12-26', '2014-12-29',
'2014-12-30', '2014-12-31', '2015-01-02', '2015-01-05', '2015-01-06',
'2015-01-07', '2015-01-08', '2015-01-09', '2015-01-12', '2015-01-13',
'2015-01-14', '2015-01-15', '2015-01-16', '2015-01-20', '2015-01-21',
'2015-01-22', '2015-01-23', '2015-01-26', '2015-01-27', '2015-01-28',
'2015-01-29', '2015-01-30', '2015-02-02', '2015-02-03', '2015-02-04',
'2015-02-05', '2015-02-06', '2015-02-09', '2015-02-10', '2015-02-11',
'2015-02-12', '2015-02-13', '2015-02-17', '2015-02-18', '2015-02-19',
'2015-02-20', '2015-02-23', '2015-02-24', '2015-02-25', '2015-02-26',
'2015-02-27', '2015-03-02', '2015-03-03', '2015-03-04', '2015-03-05',
'2015-03-06', '2015-03-09', '2015-03-10', '2015-03-11', '2015-03-12',
'2015-03-13', '2015-03-16', '2015-03-17', '2015-03-18', '2015-03-19',
'2015-03-20', '2015-03-23', '2015-03-24', '2015-03-25', '2015-03-26',
'2015-03-27', '2015-03-30', '2015-03-31', '2015-04-01', '2015-04-02',
'2015-04-06', '2015-04-07', '2015-04-08', '2015-04-09', '2015-04-10',
'2015-04-13', '2015-04-14', '2015-04-15', '2015-04-16', '2015-04-17',
'2015-04-20', '2015-04-21', '2015-04-22', '2015-04-23', '2015-04-24',
'2015-04-27', '2015-04-28', '2015-04-29', '2015-04-30', '2015-05-01',
'2015-05-04', '2015-05-05', '2015-05-06', '2015-05-07', '2015-05-08',
'2015-05-11', '2015-05-12', '2015-05-13', '2015-05-14', '2015-05-15',
'2015-05-18', '2015-05-19', '2015-05-20', '2015-05-21', '2015-05-22',

'2015-05-26', '2015-05-27', '2015-05-28', '2015-05-29', '2015-06-01',
'2015-06-02', '2015-06-03', '2015-06-04', '2015-06-05', '2015-06-08',
'2015-06-09', '2015-06-10', '2015-06-11', '2015-06-12', '2015-06-15',
'2015-06-16', '2015-06-17', '2015-06-18', '2015-06-19', '2015-06-22',
'2015-06-23', '2015-06-24', '2015-06-25', '2015-06-26', '2015-06-29',
'2015-06-30', '2015-07-01', '2015-07-02', '2015-07-06', '2015-07-07',
'2015-07-08', '2015-07-09', '2015-07-10', '2015-07-13', '2015-07-14',
'2015-07-15', '2015-07-16', '2015-07-17', '2015-07-20', '2015-07-21',
'2015-07-22', '2015-07-23', '2015-07-24', '2015-07-27', '2015-07-28',
'2015-07-29', '2015-07-30', '2015-07-31', '2015-08-03', '2015-08-04',
'2015-08-05', '2015-08-06', '2015-08-07', '2015-08-10', '2015-08-11',
'2015-08-12', '2015-08-13', '2015-08-14', '2015-08-17', '2015-08-18',
'2015-08-19', '2015-08-20', '2015-08-21', '2015-08-24', '2015-08-25',
'2015-08-26', '2015-08-27', '2015-08-28', '2015-08-31', '2015-09-01',
'2015-09-02', '2015-09-03', '2015-09-04', '2015-09-08', '2015-09-09',
'2015-09-10', '2015-09-11', '2015-09-14', '2015-09-15', '2015-09-16',
'2015-09-17', '2015-09-18', '2015-09-21', '2015-09-22', '2015-09-23',
'2015-09-24', '2015-09-25', '2015-09-28', '2015-09-29', '2015-09-30',
'2015-10-01', '2015-10-02', '2015-10-05', '2015-10-06', '2015-10-07',
'2015-10-08', '2015-10-09', '2015-10-12', '2015-10-13', '2015-10-14',
'2015-10-15', '2015-10-16', '2015-10-19', '2015-10-20', '2015-10-21',
'2015-10-22', '2015-10-23', '2015-10-26', '2015-10-27', '2015-10-28',
'2015-10-29', '2015-10-30', '2015-11-02', '2015-11-03', '2015-11-04',
'2015-11-05', '2015-11-06', '2015-11-09', '2015-11-10', '2015-11-11',
'2015-11-12', '2015-11-13', '2015-11-16', '2015-11-17', '2015-11-18',
'2015-11-19', '2015-11-20', '2015-11-23', '2015-11-24', '2015-11-25',
'2015-11-27', '2015-11-30', '2015-12-01', '2015-12-02', '2015-12-03',
'2015-12-04', '2015-12-07', '2015-12-08', '2015-12-09', '2015-12-10',
'2015-12-11', '2015-12-14', '2015-12-15', '2015-12-16', '2015-12-17',
'2015-12-18', '2015-12-21', '2015-12-22', '2015-12-23', '2015-12-24',
'2015-12-28', '2015-12-29', '2015-12-30', '2015-12-31', '2016-01-04',
'2016-01-05', '2016-01-06', '2016-01-07', '2016-01-08', '2016-01-11',
'2016-01-12', '2016-01-13', '2016-01-14', '2016-01-15', '2016-01-19',
'2016-01-20', '2016-01-21', '2016-01-22', '2016-01-25', '2016-01-26',
'2016-01-27', '2016-01-28', '2016-01-29', '2016-02-01', '2016-02-02',
'2016-02-03', '2016-02-04', '2016-02-05', '2016-02-08', '2016-02-09',
'2016-02-10', '2016-02-11', '2016-02-12', '2016-02-16', '2016-02-17',
'2016-02-18', '2016-02-19', '2016-02-22', '2016-02-23', '2016-02-24',
'2016-02-25', '2016-02-26', '2016-02-29', '2016-03-01', '2016-03-02',
'2016-03-03', '2016-03-04', '2016-03-07', '2016-03-08', '2016-03-09',
'2016-03-10', '2016-03-11', '2016-03-14', '2016-03-15', '2016-03-16',
'2016-03-17', '2016-03-18', '2016-03-21', '2016-03-22', '2016-03-23',
'2016-03-24', '2016-03-28', '2016-03-29', '2016-03-30', '2016-03-31',
'2016-04-01', '2016-04-04', '2016-04-05', '2016-04-06', '2016-04-07',
'2016-04-08', '2016-04-11', '2016-04-12', '2016-04-13', '2016-04-14',
'2016-04-15', '2016-04-18', '2016-04-19', '2016-04-20', '2016-04-21',
'2016-04-22', '2016-04-25', '2016-04-26', '2016-04-27', '2016-04-28',
'2016-04-29', '2016-05-02', '2016-05-03', '2016-05-04', '2016-05-05',
'2016-05-06', '2016-05-09', '2016-05-10', '2016-05-11', '2016-05-12',
'2016-05-13', '2016-05-16', '2016-05-17', '2016-05-18', '2016-05-19',
'2016-05-20', '2016-05-23', '2016-05-24', '2016-05-25', '2016-05-26',
'2016-05-27', '2016-05-31', '2016-06-01', '2016-06-02', '2016-06-03',
'2016-06-06', '2016-06-07', '2016-06-08', '2016-06-09', '2016-06-10',
'2016-06-13', '2016-06-14', '2016-06-15', '2016-06-16', '2016-06-17',
'2016-06-20', '2016-06-21', '2016-06-22', '2016-06-23', '2016-06-24',
'2016-06-27', '2016-06-28', '2016-06-29', '2016-06-30', '2016-07-01',
'2016-07-05', '2016-07-06', '2016-07-07', '2016-07-08', '2016-07-11',

'2016-07-12', '2016-07-13', '2016-07-14', '2016-07-15', '2016-07-18',
'2016-07-19', '2016-07-20', '2016-07-21', '2016-07-22', '2016-07-25',
'2016-07-26', '2016-07-27', '2016-07-28', '2016-07-29', '2016-08-01',
'2016-08-02', '2016-08-03', '2016-08-04', '2016-08-05', '2016-08-08',
'2016-08-09', '2016-08-10', '2016-08-11', '2016-08-12', '2016-08-15',
'2016-08-16', '2016-08-17', '2016-08-18', '2016-08-19', '2016-08-22',
'2016-08-23', '2016-08-24', '2016-08-25', '2016-08-26', '2016-08-29',
'2016-08-30', '2016-08-31', '2016-09-01', '2016-09-02', '2016-09-06',
'2016-09-07', '2016-09-08', '2016-09-09', '2016-09-12', '2016-09-13',
'2016-09-14', '2016-09-15', '2016-09-16', '2016-09-19', '2016-09-20',
'2016-09-21', '2016-09-22', '2016-09-23', '2016-09-26', '2016-09-27',
'2016-09-28', '2016-09-29', '2016-09-30', '2016-10-03', '2016-10-04',
'2016-10-05', '2016-10-06', '2016-10-07', '2016-10-10', '2016-10-11',
'2016-10-12', '2016-10-13', '2016-10-14', '2016-10-17', '2016-10-18',
'2016-10-19', '2016-10-20', '2016-10-21', '2016-10-24', '2016-10-25',
'2016-10-26', '2016-10-27', '2016-10-28', '2016-10-31', '2016-11-01',
'2016-11-02', '2016-11-03', '2016-11-04', '2016-11-07', '2016-11-08',
'2016-11-09', '2016-11-10', '2016-11-11', '2016-11-14', '2016-11-15',
'2016-11-16', '2016-11-17', '2016-11-18', '2016-11-21', '2016-11-22',
'2016-11-23', '2016-11-25', '2016-11-28', '2016-11-29', '2016-11-30',
'2016-12-01', '2016-12-02', '2016-12-05', '2016-12-06', '2016-12-07',
'2016-12-08', '2016-12-09', '2016-12-12', '2016-12-13', '2016-12-14',
'2016-12-15', '2016-12-16', '2016-12-19', '2016-12-20', '2016-12-21',
'2016-12-22', '2016-12-23', '2016-12-27', '2016-12-28', '2016-12-29',
'2016-12-30', '2017-01-03', '2017-01-04', '2017-01-05', '2017-01-06',
'2017-01-09', '2017-01-10', '2017-01-11', '2017-01-12', '2017-01-13',
'2017-01-17', '2017-01-18', '2017-01-19', '2017-01-20', '2017-01-23',
'2017-01-24', '2017-01-25', '2017-01-26', '2017-01-27', '2017-01-30',
'2017-01-31', '2017-02-01', '2017-02-02', '2017-02-03', '2017-02-06',
'2017-02-07', '2017-02-08', '2017-02-09', '2017-02-10', '2017-02-13',
'2017-02-14', '2017-02-15', '2017-02-16', '2017-02-17', '2017-02-21',
'2017-02-22', '2017-02-23', '2017-02-24', '2017-02-27', '2017-02-28',
'2017-03-01', '2017-03-02', '2017-03-03', '2017-03-06', '2017-03-07',
'2017-03-08', '2017-03-09', '2017-03-10', '2017-03-13', '2017-03-14',
'2017-03-15', '2017-03-16', '2017-03-17', '2017-03-20', '2017-03-21',
'2017-03-22', '2017-03-23', '2017-03-24', '2017-03-27', '2017-03-28',
'2017-03-29', '2017-03-30', '2017-03-31', '2017-04-03', '2017-04-04',
'2017-04-05', '2017-04-06', '2017-04-07', '2017-04-10', '2017-04-11',
'2017-04-12', '2017-04-13', '2017-04-17', '2017-04-18', '2017-04-19',
'2017-04-20', '2017-04-21', '2017-04-24', '2017-04-25', '2017-04-26',
'2017-04-27', '2017-04-28', '2017-05-01', '2017-05-02', '2017-05-03',
'2017-05-04', '2017-05-05', '2017-05-08', '2017-05-09', '2017-05-10',
'2017-05-11', '2017-05-12', '2017-05-15', '2017-05-16', '2017-05-17',
'2017-05-18', '2017-05-19', '2017-05-22', '2017-05-23', '2017-05-24',
'2017-05-25', '2017-05-26', '2017-05-30', '2017-05-31', '2017-06-01',
'2017-06-02', '2017-06-05', '2017-06-06', '2017-06-07', '2017-06-08',
'2017-06-09', '2017-06-12', '2017-06-13', '2017-06-14', '2017-06-15',
'2017-06-16', '2017-06-19', '2017-06-20', '2017-06-21', '2017-06-22',
'2017-06-23', '2017-06-26', '2017-06-27', '2017-06-28', '2017-06-29',
'2017-06-30', '2017-07-03', '2017-07-05', '2017-07-06', '2017-07-07',
'2017-07-10', '2017-07-11', '2017-07-12', '2017-07-13', '2017-07-14',
'2017-07-17', '2017-07-18', '2017-07-19', '2017-07-20', '2017-07-21',
'2017-07-24', '2017-07-25', '2017-07-26', '2017-07-27', '2017-07-28',
'2017-07-31', '2017-08-01', '2017-08-02', '2017-08-03', '2017-08-04',
'2017-08-07', '2017-08-08', '2017-08-09', '2017-08-10', '2017-08-11',
'2017-08-14', '2017-08-15', '2017-08-16', '2017-08-17', '2017-08-18',
'2017-08-21', '2017-08-22', '2017-08-23', '2017-08-24', '2017-08-25',

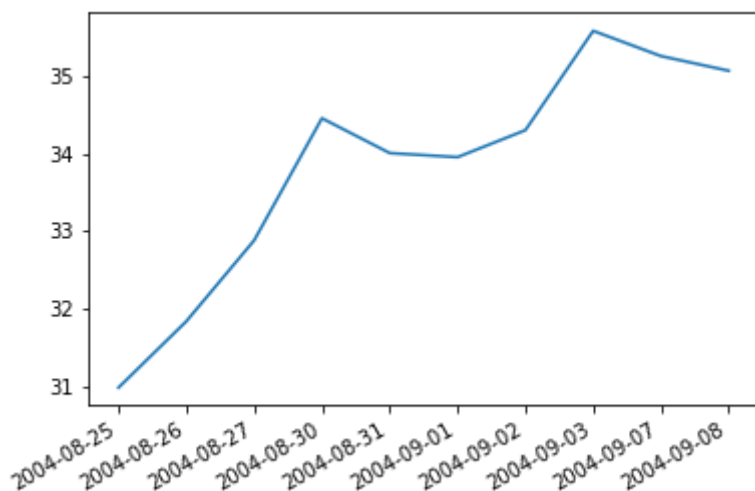
'2017-08-28', '2017-08-29', '2017-08-30', '2017-08-31', '2017-09-01',
'2017-09-05', '2017-09-06', '2017-09-07', '2017-09-08', '2017-09-11',
'2017-09-12', '2017-09-13', '2017-09-14', '2017-09-15', '2017-09-18',
'2017-09-19', '2017-09-20', '2017-09-21', '2017-09-22', '2017-09-25',
'2017-09-26', '2017-09-27', '2017-09-28', '2017-09-29', '2017-10-02',
'2017-10-03', '2017-10-04', '2017-10-05', '2017-10-06', '2017-10-09',
'2017-10-10', '2017-10-11', '2017-10-12', '2017-10-13', '2017-10-16',
'2017-10-17', '2017-10-18', '2017-10-19', '2017-10-20', '2017-10-23',
'2017-10-24', '2017-10-25', '2017-10-26', '2017-10-27', '2017-10-30',
'2017-10-31', '2017-11-01', '2017-11-02', '2017-11-03', '2017-11-06',
'2017-11-07', '2017-11-08', '2017-11-09', '2017-11-10', '2017-11-13',
'2017-11-14', '2017-11-15', '2017-11-16', '2017-11-17', '2017-11-20',
'2017-11-21', '2017-11-22', '2017-11-24', '2017-11-27', '2017-11-28',
'2017-11-29', '2017-11-30', '2017-12-01', '2017-12-04', '2017-12-05',
'2017-12-06', '2017-12-07', '2017-12-08', '2017-12-11', '2017-12-12',
'2017-12-13', '2017-12-14', '2017-12-15', '2017-12-18', '2017-12-19',
'2017-12-20', '2017-12-21', '2017-12-22', '2017-12-26', '2017-12-27',
'2017-12-28', '2017-12-29', '2018-01-02', '2018-01-03', '2018-01-04',
'2018-01-05', '2018-01-08', '2018-01-09', '2018-01-10', '2018-01-11',
'2018-01-12', '2018-01-16', '2018-01-17', '2018-01-18', '2018-01-19',
'2018-01-22', '2018-01-23', '2018-01-24', '2018-01-25', '2018-01-26',
'2018-01-29', '2018-01-30', '2018-01-31', '2018-02-01', '2018-02-02',
'2018-02-05', '2018-02-06', '2018-02-07', '2018-02-08', '2018-02-09',
'2018-02-12', '2018-02-13', '2018-02-14', '2018-02-15', '2018-02-16',
'2018-02-20', '2018-02-21', '2018-02-22', '2018-02-23', '2018-02-26',
'2018-02-27', '2018-02-28', '2018-03-01', '2018-03-02', '2018-03-05',
'2018-03-06', '2018-03-07', '2018-03-08', '2018-03-09', '2018-03-12',
'2018-03-13', '2018-03-14', '2018-03-15', '2018-03-16', '2018-03-19',
'2018-03-20', '2018-03-21', '2018-03-22', '2018-03-23', '2018-03-26',
'2018-03-27', '2018-03-28', '2018-03-29', '2018-04-02', '2018-04-03',
'2018-04-04', '2018-04-05', '2018-04-06', '2018-04-09', '2018-04-10',
'2018-04-11', '2018-04-12', '2018-04-13', '2018-04-16', '2018-04-17',
'2018-04-18', '2018-04-19', '2018-04-20', '2018-04-23', '2018-04-24',
'2018-04-25', '2018-04-26', '2018-04-27', '2018-04-30', '2018-05-01',
'2018-05-02', '2018-05-03', '2018-05-04', '2018-05-07', '2018-05-08',
'2018-05-09', '2018-05-10', '2018-05-11', '2018-05-14', '2018-05-15',
'2018-05-16', '2018-05-17', '2018-05-18', '2018-05-21', '2018-05-22',
'2018-05-23', '2018-05-24', '2018-05-25', '2018-05-29', '2018-05-30',
'2018-05-31', '2018-06-01', '2018-06-04', '2018-06-05', '2018-06-06',
'2018-06-07', '2018-06-08', '2018-06-11', '2018-06-12', '2018-06-13',
'2018-06-14', '2018-06-15', '2018-06-18', '2018-06-19', '2018-06-20',
'2018-06-21', '2018-06-22', '2018-06-25', '2018-06-26', '2018-06-27',
'2018-06-28', '2018-06-29', '2018-07-02', '2018-07-03', '2018-07-05',
'2018-07-06', '2018-07-09', '2018-07-10', '2018-07-11', '2018-07-12',
'2018-07-13', '2018-07-16', '2018-07-17', '2018-07-18', '2018-07-19',
'2018-07-20', '2018-07-23', '2018-07-24', '2018-07-25', '2018-07-26',
'2018-07-27', '2018-07-30', '2018-07-31', '2018-08-01', '2018-08-02',
'2018-08-03', '2018-08-06', '2018-08-07', '2018-08-08', '2018-08-09',
'2018-08-10', '2018-08-13', '2018-08-14', '2018-08-15', '2018-08-16',
'2018-08-17', '2018-08-20', '2018-08-21', '2018-08-22', '2018-08-23',
'2018-08-24', '2018-08-27', '2018-08-28', '2018-08-29', '2018-08-30',
'2018-08-31', '2018-09-04', '2018-09-05', '2018-09-06', '2018-09-07',
'2018-09-10', '2018-09-11', '2018-09-12', '2018-09-13', '2018-09-14',
'2018-09-17', '2018-09-18', '2018-09-19', '2018-09-20', '2018-09-21',
'2018-09-24', '2018-09-25', '2018-09-26', '2018-09-27', '2018-09-28',
'2018-10-01', '2018-10-02', '2018-10-03', '2018-10-04', '2018-10-05',
'2018-10-08', '2018-10-09', '2018-10-10', '2018-10-11', '2018-10-12',

'2018-10-15', '2018-10-16', '2018-10-17', '2018-10-18', '2018-10-19',
'2018-10-22', '2018-10-23', '2018-10-24', '2018-10-25', '2018-10-26',
'2018-10-29', '2018-10-30', '2018-10-31', '2018-11-01', '2018-11-02',
'2018-11-05', '2018-11-06', '2018-11-07', '2018-11-08', '2018-11-09',
'2018-11-12', '2018-11-13', '2018-11-14', '2018-11-15', '2018-11-16',
'2018-11-19', '2018-11-20', '2018-11-21', '2018-11-23', '2018-11-26',
'2018-11-27', '2018-11-28', '2018-11-29', '2018-11-30', '2018-12-03',
'2018-12-04', '2018-12-06', '2018-12-07', '2018-12-10', '2018-12-11',
'2018-12-12', '2018-12-13', '2018-12-14', '2018-12-17', '2018-12-18',
'2018-12-19', '2018-12-20', '2018-12-21', '2018-12-24', '2018-12-26',
'2018-12-27', '2018-12-28', '2018-12-31', '2019-01-02', '2019-01-03',
'2019-01-04', '2019-01-07', '2019-01-08', '2019-01-09', '2019-01-10',
'2019-01-11', '2019-01-14', '2019-01-15', '2019-01-16', '2019-01-17',
'2019-01-18', '2019-01-22', '2019-01-23', '2019-01-24', '2019-01-25',
'2019-01-28', '2019-01-29', '2019-01-30', '2019-01-31', '2019-02-01',
'2019-02-04', '2019-02-05', '2019-02-06', '2019-02-07', '2019-02-08',
'2019-02-11', '2019-02-12', '2019-02-13', '2019-02-14', '2019-02-15',
'2019-02-19', '2019-02-20', '2019-02-21', '2019-02-22', '2019-02-25',
'2019-02-26', '2019-02-27', '2019-02-28', '2019-03-01', '2019-03-04',
'2019-03-05', '2019-03-06', '2019-03-07', '2019-03-08', '2019-03-11',
'2019-03-12', '2019-03-13', '2019-03-14', '2019-03-15', '2019-03-18',
'2019-03-19', '2019-03-20', '2019-03-21', '2019-03-22', '2019-03-25',
'2019-03-26', '2019-03-27', '2019-03-28', '2019-03-29', '2019-04-01',
'2019-04-02', '2019-04-03', '2019-04-04', '2019-04-05', '2019-04-08',
'2019-04-09', '2019-04-10', '2019-04-11', '2019-04-12', '2019-04-15',
'2019-04-16', '2019-04-17', '2019-04-18', '2019-04-22', '2019-04-23',
'2019-04-24', '2019-04-25', '2019-04-26', '2019-04-29', '2019-04-30',
'2019-05-01', '2019-05-02', '2019-05-03', '2019-05-06', '2019-05-07',
'2019-05-08', '2019-05-09', '2019-05-10', '2019-05-13', '2019-05-14',
'2019-05-15', '2019-05-16', '2019-05-17', '2019-05-20', '2019-05-21',
'2019-05-22', '2019-05-23', '2019-05-24', '2019-05-28', '2019-05-29',
'2019-05-30', '2019-05-31', '2019-06-03', '2019-06-04', '2019-06-05',
'2019-06-06', '2019-06-07', '2019-06-10', '2019-06-11', '2019-06-12',
'2019-06-13', '2019-06-14', '2019-06-17', '2019-06-18', '2019-06-19',
'2019-06-20', '2019-06-21', '2019-06-24', '2019-06-25', '2019-06-26',
'2019-06-27', '2019-06-28', '2019-07-01', '2019-07-02', '2019-07-03',
'2019-07-05', '2019-07-08', '2019-07-09', '2019-07-10', '2019-07-11',
'2019-07-12', '2019-07-15', '2019-07-16', '2019-07-17', '2019-07-18',
'2019-07-19', '2019-07-22', '2019-07-23', '2019-07-24', '2019-07-25',
'2019-07-26', '2019-07-29', '2019-07-30', '2019-07-31', '2019-08-01',
'2019-08-02', '2019-08-05', '2019-08-06', '2019-08-07', '2019-08-08',
'2019-08-09', '2019-08-12', '2019-08-13', '2019-08-14', '2019-08-15',
'2019-08-16', '2019-08-19', '2019-08-20', '2019-08-21', '2019-08-22',
'2019-08-23', '2019-08-26', '2019-08-27', '2019-08-28', '2019-08-29',
'2019-08-30', '2019-09-03', '2019-09-04', '2019-09-05', '2019-09-06',
'2019-09-09', '2019-09-10', '2019-09-11', '2019-09-12', '2019-09-13',
'2019-09-16', '2019-09-17', '2019-09-18', '2019-09-19', '2019-09-20',
'2019-09-23', '2019-09-24', '2019-09-25', '2019-09-26', '2019-09-27',
'2019-09-30', '2019-10-01', '2019-10-02', '2019-10-03', '2019-10-04',
'2019-10-07', '2019-10-08', '2019-10-09', '2019-10-10', '2019-10-11',
'2019-10-14', '2019-10-15', '2019-10-16', '2019-10-17', '2019-10-18',
'2019-10-21', '2019-10-22', '2019-10-23', '2019-10-24', '2019-10-25',
'2019-10-28', '2019-10-29', '2019-10-30', '2019-10-31', '2019-11-01',
'2019-11-04', '2019-11-05', '2019-11-06', '2019-11-07', '2019-11-08',
'2019-11-11', '2019-11-12', '2019-11-13', '2019-11-14', '2019-11-15',
'2019-11-18', '2019-11-19', '2019-11-20', '2019-11-21', '2019-11-22',
'2019-11-25', '2019-11-26', '2019-11-27', '2019-11-29', '2019-12-02',

```
'2019-12-03', '2019-12-04', '2019-12-05', '2019-12-06', '2019-12-09',
'2019-12-10', '2019-12-11', '2019-12-12', '2019-12-13', '2019-12-16',
'2019-12-17', '2019-12-18', '2019-12-19', '2019-12-20', '2019-12-23',
'2019-12-24', '2019-12-26', '2019-12-27', '2019-12-30', '2019-12-31',
'2020-01-02', '2020-01-03', '2020-01-06', '2020-01-07', '2020-01-08',
'2020-01-09', '2020-01-10', '2020-01-13', '2020-01-14', '2020-01-15',
'2020-01-16', '2020-01-17', '2020-01-21', '2020-01-22', '2020-01-23',
'2020-01-24', '2020-01-27', '2020-01-28', '2020-01-29', '2020-01-30',
'2020-01-31', '2020-02-03', '2020-02-04', '2020-02-05', '2020-02-06',
'2020-02-07', '2020-02-10', '2020-02-11', '2020-02-12', '2020-02-13',
'2020-02-14', '2020-02-18', '2020-02-19', '2020-02-20', '2020-02-21',
'2020-02-24', '2020-02-25', '2020-02-26', '2020-02-27', '2020-02-28',
'2020-03-02', '2020-03-03', '2020-03-04', '2020-03-05', '2020-03-06']
```

```
In [131]: import matplotlib.ticker as mticker
```

```
fig, ax = plt.subplots()
ax.plot(dates[1000:1010], temp_pred[1000:1010])
fig.autofmt_xdate()
start, end = ax.get_xlim()
plt.show()
```



```
In [133]: fig, ax = plt.subplots()
ax.plot(dates[1000:1010], temp_y[1000:1010])
fig.autofmt_xdate()
start, end = ax.get_xlim()
plt.show()
```

