```
In [2]:  import pandas as pd
         import folium
```

```
In [3]:  dfa = pd.read_csv('dm_mid2_a.csv', header=0)
```

```
In [5]:  dfa.head()
```

Out[5]:

	pref	pop
0	Tokyo	13159388
1	Kanagawa	9048331
2	Osaka	8865245
3	Aichi	7410719
4	Saitama	7194556

```
In [6]:  dfb=pd.read_csv('dm_mid2_b.csv', header=0)
```

```
In [7]:  dfb.head()
```

Out[7]:

	pref	born
0	Tottori	4790
1	Kochi	5518
2	Shimane	5756
3	Tokushima	5904
4	Yamanashi	6651

Ans.1

```
In [8]:  df=pd.merge(dfa, dfb, on='pref')
```

```
In [9]:  df.head()
```

Out[9]:

	pref	pop	born
0	Tokyo	13159388	108135
1	Kanagawa	9048331	78077
2	Osaka	8865245	75080
3	Aichi	7410719	69872
4	Saitama	7194556	59437

Ans.2

```
In [10]: m = folium.Map(location=[38,135], zoom_start=5)
         folium.Choropleth(
             geo_data='japan.json',
             key_on='feature.properties.name',
             data=df,
             columns=['pref', 'born'],
             fill_color='BuPu',
             legend_name='#born'
         ).add_to(m)

         display(m)
```
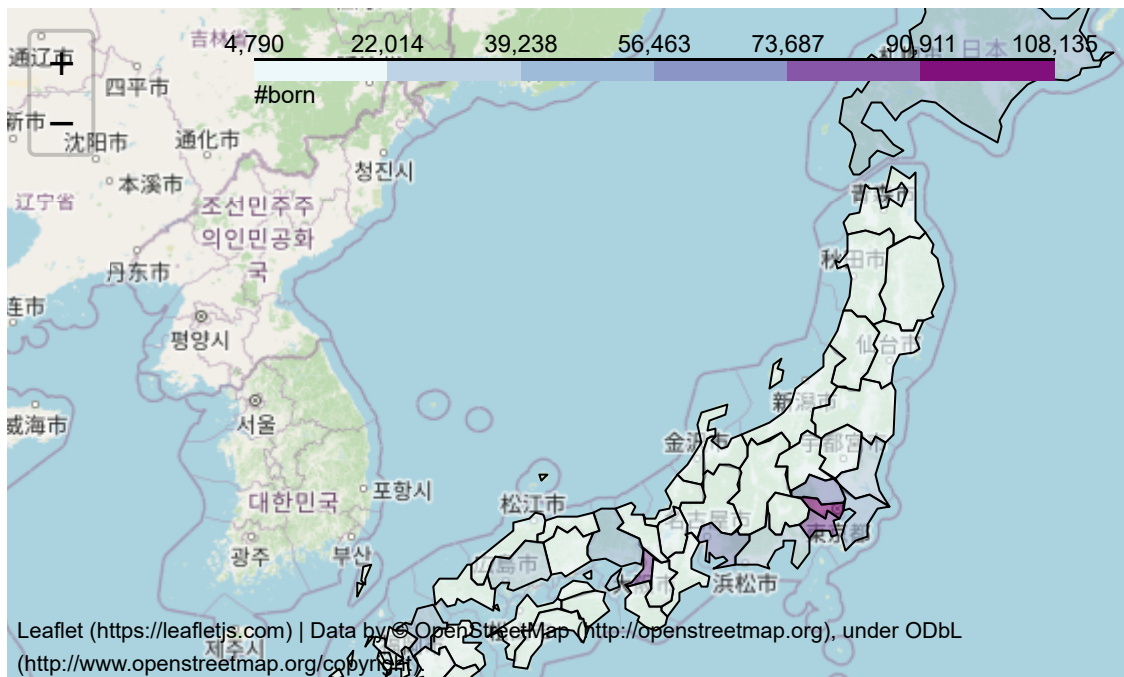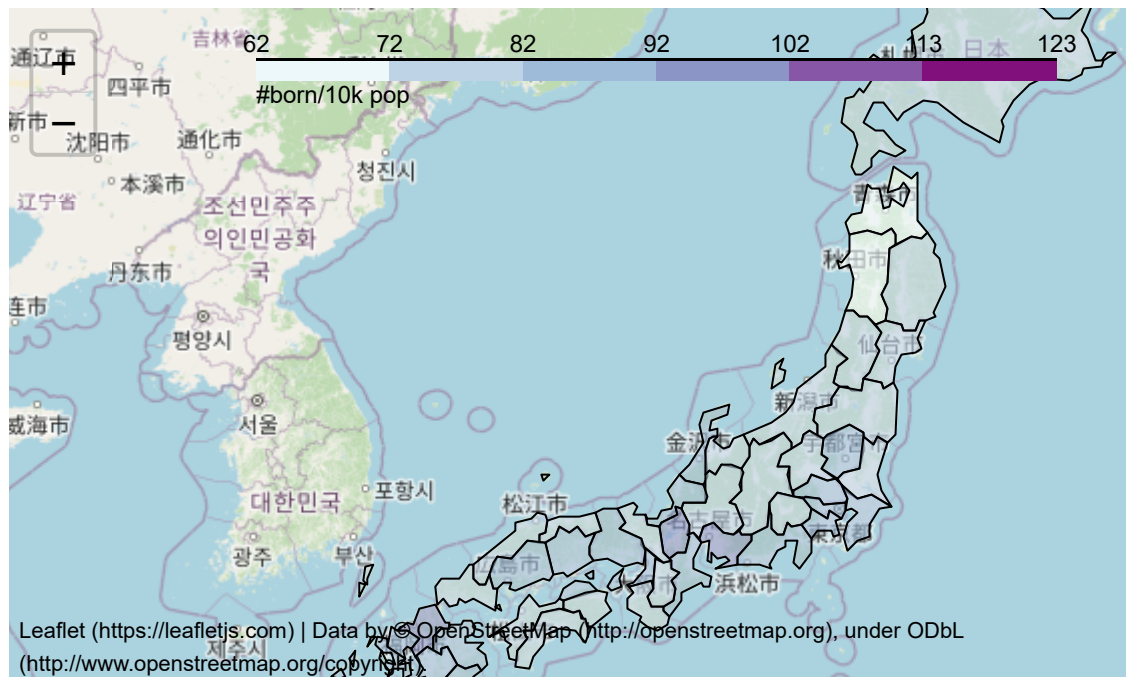

Ans.3

```
In [11]: df['ratio']=df['born']/df['pop']*1.e4
```

```
In [13]: m = folium.Map(location=[38,135], zoom_start=5)
folium.Choropleth(
    geo_data='japan.json',
    key_on='feature.properties.name',
    data=df,
    columns=['pref', 'ratio'],
    fill_color='BuPu',
    legend_name='#born/10k pop'
).add_to(m)

display(m)
```


In [ ]: