In [74]:
```
import pandas as pd
import matplotlib.pyplot as plt
```

In [6]:
```
drinks_data = pd.read_csv("drinks.csv")
drinks_data.head(500)
```

Out[6]:

	country	beer_servings	spirit_servings	wine_servings	total_litres_of_pure_alcohol	continent
0	Afghanistan	0	0	0	0.0	Asia
1	Albania	89	132	54	4.9	Europe
2	Algeria	25	0	14	0.7	Africa
3	Andorra	245	138	312	12.4	Europe
4	Angola	217	57	45	5.9	Africa
...	...	...	...	...	...	...
188	Venezuela	333	100	3	7.7	South America
189	Vietnam	111	2	1	2.0	Asia
190	Yemen	6	0	0	0.1	Asia
191	Zambia	32	19	4	2.5	Africa
192	Zimbabwe	64	18	4	4.7	Africa

193 rows × 6 columns

In [17]:
```
# tampilkan rata2 per benua tingkat beer servings

avg = drinks_data.groupby('continent')[['beer_servings']].mean()
print(avg)
```

```
               beer_servings
continent
Africa             61.471698
Asia               37.045455
Europe            193.777778
North America     145.434783
Oceania            89.687500
South America     175.083333
```

In [20]:
```
# jumlah negara dari setiap benua

jml = drinks_data.groupby('continent')[['country']].count()
print(jml)
```

```
                country
continent
Africa               53
Asia                 44
Europe               45
North America        23
Oceania              16
South America        12
```

In [64]:
```
# data negara dan benua yang mempunyai tingkat beer serving dibawah rata2 global

avg_bs = drinks_data['beer_servings'].mean()
print(avg_bs)
drinks_data[['country', 'continent', 'beer_servings']][drinks_data['beer_servings'] <
```

```
106.16062176165804
```

Out[64]:

	country	continent	beer_servings
0	Afghanistan	Asia	0
1	Albania	Europe	89
2	Algeria	Africa	25
5	Antigua & Barbuda	North America	102
7	Armenia	Europe	21
...	...	...	...
186	Uzbekistan	Asia	25
187	Vanuatu	Oceania	21
190	Yemen	Asia	6
191	Zambia	Africa	32
192	Zimbabwe	Africa	64

117 rows × 3 columns

In [68]:
```
# tampilkan rata2 tingkat beer serving untuk negara di benua europe & afrika

avg_eu = drinks_data[drinks_data['continent'] == 'Europe']
avg_af = drinks_data[drinks_data['continent'] == 'Africa']

print("rata2 beer serving europe: ", avg_eu['beer_servings'].mean())
print("rata2 beer serving afrika: ", avg_af['beer_servings'].mean())
```

```
rata2 beer serving europe:  193.77777777777777
rata2 beer serving afrika:  61.471698113207545
```

In [80]:
```
# buktikan negara di europe mempunyai tingkat minum lebih tinggi dari negara asia dan

avg_as = drinks_data[drinks_data['continent'] == 'Asia']
print("rata2 beer serving asia: ", avg_as['beer_servings'].mean())

asia = avg_as['beer_servings'].mean()
afrika = avg_af['beer_servings'].mean()
eropa = avg_eu['beer_servings'].mean()
```

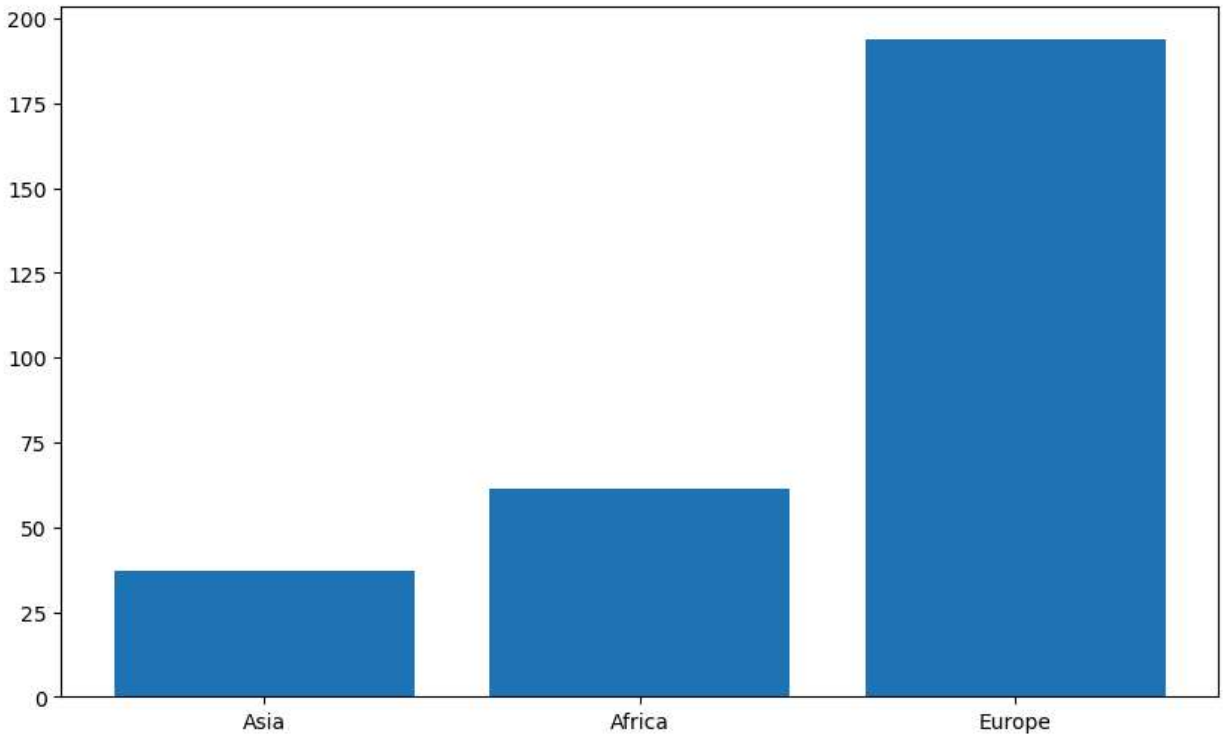
```
rata2 beer serving asia:  37.04545454545455
```

In [108…

```
avg = [asia, afrika, eropa]
continents = ['Asia', 'Africa', 'Europe']
plt.figure(figsize=(10,6))
plt.bar(continents, avg)
```

Out[108]:

```
<BarContainer object of 3 artists>
```



In [113…

```
# tampilkan benua yang memiliki beer serving tertinggi

highest = drinks_data.groupby('continent')[['beer_servings']].max()
highest.head(1)
```

Out[113]:

continent	beer_servings
Africa	376

In [128…

```
# tampilkan negara yang mempunyai tingkat minum diatas rata2
#print("rata2 adalah: ", avg_bs)

avg = drinks_data['total_litres_of_pure_alcohol'].mean()
print(avg)

drinks_data[['country', 'total_litres_of_pure_alcohol']][drinks_data['total_litres_of_
```

```
4.717098445595855
```

Out[128]:

	country	total_litres_of_pure_alcohol
1	Albania	4.9
3	Andorra	12.4
4	Angola	5.9
5	Antigua & Barbuda	4.9
6	Argentina	8.3
...	...	...
182	United Kingdom	10.4
183	Tanzania	5.7
184	USA	8.7
185	Uruguay	6.6
188	Venezuela	7.7

90 rows × 2 columns

In [137…

```
# Tampilkan negara yang mempunyai tingkat minum 0
a = drinks_data[drinks_data['total_litres_of_pure_alcohol'] == 0]
print(a)
```

```
             country  beer_servings  spirit_servings  wine_servings  \
0        Afghanistan              0                0              0
13        Bangladesh              0                0              0
46       North Korea              0                0              0
79              Iran              0                0              0
90            Kuwait              0                0              0
97             Libya              0                0              0
103         Maldives              0                0              0
106  Marshall Islands              0                0              0
107       Mauritania              0                0              0
111           Monaco              0                0              0
128         Pakistan              0                0              0
147       San Marino              0                0              0
158          Somalia              0                0              0

     total_litres_of_pure_alcohol continent
0                             0.0      Asia
13                            0.0      Asia
46                            0.0      Asia
79                            0.0      Asia
90                            0.0      Asia
97                            0.0    Africa
103                           0.0      Asia
106                           0.0   Oceania
107                           0.0    Africa
111                           0.0    Europe
128                           0.0      Asia
147                           0.0    Europe
158                           0.0    Africa
```

In [163…
```
# Tampilkan negara yang mempunyai tingkat minum paling tinggi
b = drinks_data.groupby('country')[['total_litres_of_pure_alcohol']].max()
print(b)

b['total_litres_of_pure_alcohol'].max()
```

```
             total_litres_of_pure_alcohol
country
Afghanistan                           0.0
Albania                               4.9
Algeria                               0.7
Andorra                              12.4
Angola                                5.9
...                                   ...
Venezuela                             7.7
Vietnam                               2.0
Yemen                                 0.1
Zambia                                2.5
Zimbabwe                              4.7

[193 rows x 1 columns]
14.4
```

Out[163]:

In [159…
```
#[pandas] Tampilkan negara di benua Europe yang mempunyai tingkat minum paling tinggi

eu = drinks_data[drinks_data['continent']=='Europe']
print(eu)

eu[['country','total_litres_of_pure_alcohol']].max()
```

	country	beer_servings	spirit_servings	wine_servings	\
1	Albania	89	132	54	
3	Andorra	245	138	312	
7	Armenia	21	179	11	
9	Austria	279	75	191	
10	Azerbaijan	21	46	5	
15	Belarus	142	373	42	
16	Belgium	295	84	212	
21	Bosnia-Herzegovina	76	173	8	
25	Bulgaria	231	252	94	
42	Croatia	230	87	254	
44	Cyprus	192	154	113	
45	Czech Republic	361	170	134	
48	Denmark	224	81	278	
57	Estonia	224	194	59	
60	Finland	263	133	97	
61	France	127	151	370	
64	Georgia	52	100	149	
65	Germany	346	117	175	
67	Greece	133	112	218	
75	Hungary	234	215	185	
76	Iceland	233	61	78	
81	Ireland	313	118	165	
83	Italy	85	42	237	
93	Latvia	281	216	62	
98	Lithuania	343	244	56	
99	Luxembourg	236	133	271	
105	Malta	149	100	120	
111	Monaco	0	0	0	
113	Montenegro	31	114	128	
120	Netherlands	251	88	190	
126	Norway	169	71	129	
135	Poland	343	215	56	
136	Portugal	194	67	339	
139	Moldova	109	226	18	
140	Romania	297	122	167	
147	San Marino	0	0	0	
151	Serbia	283	131	127	
155	Slovakia	196	293	116	
156	Slovenia	270	51	276	
160	Spain	284	157	112	
165	Sweden	152	60	186	
166	Switzerland	185	100	280	
170	Macedonia	106	27	86	
180	Ukraine	206	237	45	
182	United Kingdom	219	126	195	

	total_litres_of_pure_alcohol	continent
1	4.9	Europe
3	12.4	Europe
7	3.8	Europe
9	9.7	Europe
10	1.3	Europe
15	14.4	Europe
16	10.5	Europe
21	4.6	Europe
25	10.3	Europe
42	10.2	Europe
44	8.2	Europe
45	11.8	Europe

```
48                            10.4    Europe
57                             9.5    Europe
60                            10.0    Europe
61                            11.8    Europe
64                             5.4    Europe
65                            11.3    Europe
67                             8.3    Europe
75                            11.3    Europe
76                             6.6    Europe
81                            11.4    Europe
83                             6.5    Europe
93                            10.5    Europe
98                            12.9    Europe
99                            11.4    Europe
105                            6.6    Europe
111                            0.0    Europe
113                            4.9    Europe
120                            9.4    Europe
126                            6.7    Europe
135                           10.9    Europe
136                           11.0    Europe
139                            6.3    Europe
140                           10.4    Europe
147                            0.0    Europe
151                            9.6    Europe
155                           11.4    Europe
156                           10.6    Europe
160                           10.0    Europe
165                            7.2    Europe
166                           10.2    Europe
170                            3.9    Europe
180                            8.9    Europe
182                           10.4    Europe
country                          United Kingdom
total_litres_of_pure_alcohol                14.4
dtype: object
```

Out[159]:

In [166…

```
#[pandas] Tampilkan daftar benua, jumlah negara yang beer serving nya lebih besar dari

cont = drinks_data[['country', 'continent', 'beer_servings']][drinks_data['beer_servir
print(cont)
```

```
                country      continent  beer_servings
1               Albania         Europe             89
2               Algeria         Africa             25
3               Andorra         Europe            245
4                Angola         Africa            217
5    Antigua & Barbuda  North America            102
..                 ...            ...            ...
188          Venezuela  South America            333
189            Vietnam           Asia            111
190              Yemen           Asia              6
191             Zambia         Africa             32
192           Zimbabwe         Africa             64

[178 rows x 3 columns]
```

In [181…

```
# [pandas] Tampilkan urutan daftar benua dari tertinggi ke terendah dari jumlah negara
lists = drinks_data[['continent', 'country', 'beer_servings']].sort_values('beer_servi
print(lists)
```

```
    continent         country  beer_servings
117    Africa         Namibia            376
45     Europe  Czech Republic            361
62     Africa           Gabon            347
65     Europe         Germany            346
98     Europe       Lithuania            343
..        ...             ...            ...
107    Africa      Mauritania              0
158    Africa         Somalia              0
111    Europe          Monaco              0
128      Asia        Pakistan              0
0        Asia     Afghanistan              0

[193 rows x 3 columns]
```

In [ ]: