In [1]:

```
import pandas as pd
```

In [4]:

```
df = pd.read_csv('olympics.csv', index_col = 0, skiprows = 1)
df.head()
```

Out[4]:

	№ Summer	01 !	02 !	03 !	Total	№ Winter	01 !.1	02 !.1	03 !.1	Total.1	№ Games	01 !.2	02 !.2	0 !.
Afghanistan (AFG)	13	0	0	2	2	0	0	0	0	0	13	0	0	
Algeria (ALG)	12	5	2	8	15	3	0	0	0	0	15	5	2	
Argentina (ARG)	23	18	24	28	70	18	0	0	0	0	41	18	24	2
Armenia (ARM)	5	1	2	9	12	6	0	0	0	0	11	1	2	
Australasia (ANZ) [ANZ]	2	3	4	5	12	0	0	0	0	0	2	3	4	

In [5]:

```
for col in df.columns :
    if col [:2] == '01' :
        df.rename(columns = {col : 'Gold' + col[4:]}, inplace = True)
    if col [:2] == '02' :
        df.rename(columns = {col : 'Silver' + col[4:]}, inplace = True)
    if col [:2] == '03' :
        df.rename(columns = {col : 'Bronze' + col[4:]}, inplace = True)
    if col [:1] == '№' :
        df.rename(columns = {col : '#' + col[1:]}, inplace = True)

df.head()
```

Out[5]:

	# Summer	Gold	Silver	Bronze	Total	# Winter	Gold.1	Silver.1	Bronze.1	Tot
Afghanistan (AFG)	13	0	0	2	2	0	0	0	0	
Algeria (ALG)	12	5	2	8	15	3	0	0	0	
Argentina (ARG)	23	18	24	28	70	18	0	0	0	
Armenia (ARM)	5	1	2	9	12	6	0	0	0	
Australasia (ANZ) [ANZ]	2	3	4	5	12	0	0	0	0	

1. 하계 올림픽에서 가장 금메달을 많이 딴 나라는 어디인가? (함수이름: most_gold(), return값: 나라이름)

In [25]:

```
def most_gold():
    most_gold = df.where(df['Gold'] > 0)
    most_gold = most_gold.dropna()
    most_gold = df.sort_values(by = 'Gold', ascending=False)

    return most_gold.index[1]

most_gold()
```

Out[25]:

```
'United States₩xa0(USA) [P] [Q] [R] [Z]'
```

2. 하계 올림픽과 동계올림픽의 금메달 개수가 가장 많이 차이나는 나라는 어디인가? (함수이름 : biggest_diff(), return값: 나라이름)

In [42]:

```
def biggest_diff():
    biggest_diff = df[['Gold', 'Gold.1']]
    diff = df['Gold'] - df['Gold.1']
    df['diff'] = df['Gold'] - df['Gold.1']
    biggest_diff = df.sort_values(by = 'diff', ascending=False)

    return biggest_diff.index[1]

biggest_diff()
```

Out[42]:

```
'United States₩xa0(USA) [P] [Q] [R] [Z]'
```

3. dataframe에 "Points"라는 열을 새로 만들고자 한다. 금메달은 3점, 은메달 2점, 동메달은 1점으로 하여 각 나라의 점수를 매긴 열을 추가하기 위해 점수를 계산하여 Series 형태로 출력하시오.(함수이름 : make_points(), return값: 나라이름이 index로 있는 Series data structure)

In [49]:

```
def make_points():
    df1 = df.drop(['diff'], axis = 1) #2번에서 만든 diff열 삭제
    df['Points'] = (df['Gold'] * 3 + df['Gold.1'] * 3) + (df['Silver'] * 2 + df['Silver.1'] * 2) +



    return df1

make_points()
```

Out[49]:

	# Summer	Gold	Silver	Bronze	Total	# Winter	Gold.1	Silver.1	Bronze.1	To
Afghanistan (AFG)	13	0	0	2	2	0	0	0	0	
Algeria (ALG)	12	5	2	8	15	3	0	0	0	
Argentina (ARG)	23	18	24	28	70	18	0	0	0	
Armenia (ARM)	5	1	2	9	12	6	0	0	0	
Australasia (ANZ) [ANZ]	2	3	4	5	12	0	0	0	0	
...	...	...	...	...	...	...	...	...	...	
Independent Olympic Participants (IOP) [IOP]	1	0	1	2	3	0	0	0	0	
Zambia (ZAM) [ZAM]	12	0	1	1	2	0	0	0	0	
Zimbabwe (ZIM) [ZIM]	12	3	4	1	8	1	0	0	0	
Mixed team (ZZX) [ZZX]	3	8	5	4	17	0	0	0	0	
Totals	27	4809	4775	5130	14714	22	959	958	948	

147 rows × 16 columns