

In [2]:

```
#Import The Differnt Libraries
import pandas as pd
import numpy as np
import matplotlib
from matplotlib import pyplot as plt
import seaborn as sns
```

In [3]:

```
#Read The Data From the CSV File
#Import the dataset
x= pd.read_csv('exams.csv')
print(x)
```

	gender	race/ethnicity	parental level of education	lunch	\
0	male	group A	high school	standard	
1	female	group D	some high school	free/reduced	
2	male	group E	some college	free/reduced	
3	male	group B	high school	standard	
4	male	group E	associate's degree	standard	
..	...	...	...	...	
995	male	group C	high school	standard	
996	male	group D	associate's degree	free/reduced	
997	female	group C	some high school	free/reduced	
998	female	group C	some college	standard	
999	male	group A	some college	standard	

	test preparation course	math score	reading score	writing score
0	completed	67	67	63
1	none	40	59	55
2	none	59	60	50
3	none	77	78	68
4	completed	78	73	68
..	...	...	...	...
995	none	73	70	65
996	completed	85	91	92
997	none	32	35	41
998	none	73	74	82
999	completed	65	60	62

[1000 rows x 8 columns]

In [4]:

```
#Assign it to a variable called Ex.
Ex=jd.read_csv('exams.csv')
print(Ex)
```

	gender	race/ethnicity	parental level of education	lunch	\
0	male	group A	high school	standard	
1	female	group D	some high school	free/reduced	
2	male	group E	some college	free/reduced	
3	male	group B	high school	standard	
4	male	group E	associate's degree	standard	
..	...	...	...	...	
995	male	group C	high school	standard	
996	male	group D	associate's degree	free/reduced	
997	female	group C	some high school	free/reduced	
998	female	group C	some college	standard	
999	male	group A	some college	standard	

	test preparation course	math score	reading score	writing score
0	completed	67	67	63
1	none	40	59	55
2	none	59	60	50
3	none	77	78	68
4	completed	78	73	68
..	...	...	...	...
995	none	73	70	65
996	completed	85	91	92
997	none	32	35	41
998	none	73	74	82
999	completed	65	60	62

[1000 rows x 8 columns]

In [5]:

```
# Total Count of Male and Female
print(Ex['gender'].value_counts())
```

```
male      517
female    483
Name: gender, dtype: int64
```

In [6]:

```
# How many students completed test
z = Ex['test preparation course'].value_counts()
print(z)
```

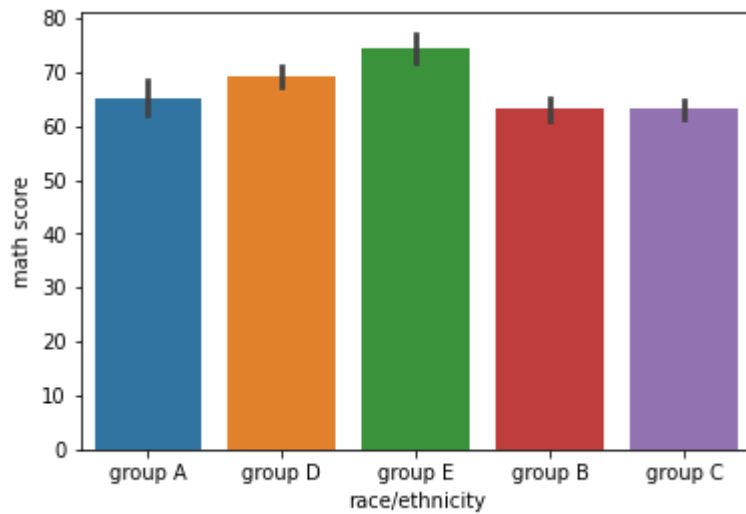
```
none      665
completed 335
Name: test preparation course, dtype: int64
```

In [7]:

```
#DATA VISUALIZATION
```

```
#Through this we can check which group are in top in math
```

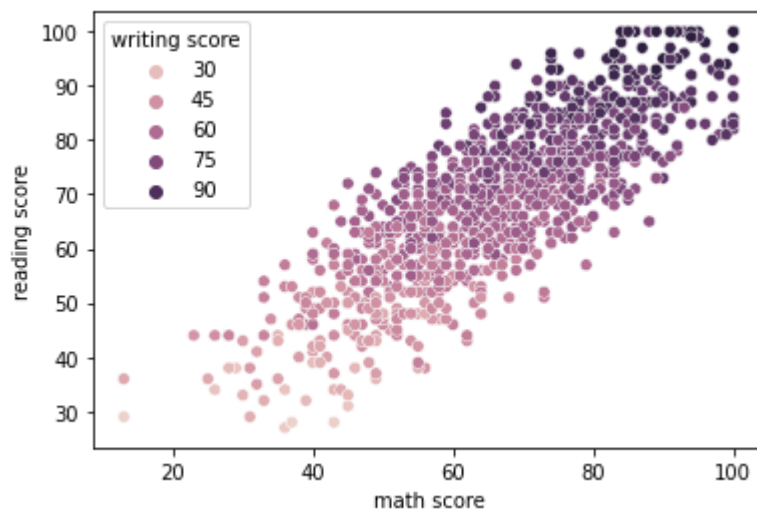
```
sns.barplot(x="race/ethnicity",y="math score",data=x)  
plt.show()
```



In [8]:

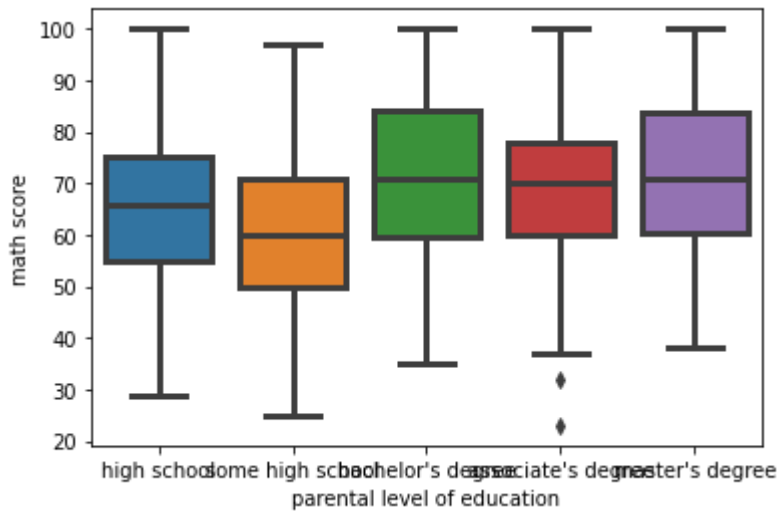
```
#Marks of three subject
```

```
sns.scatterplot(x="math score",y="reading score",data=x,hue="writing score")  
plt.show()
```



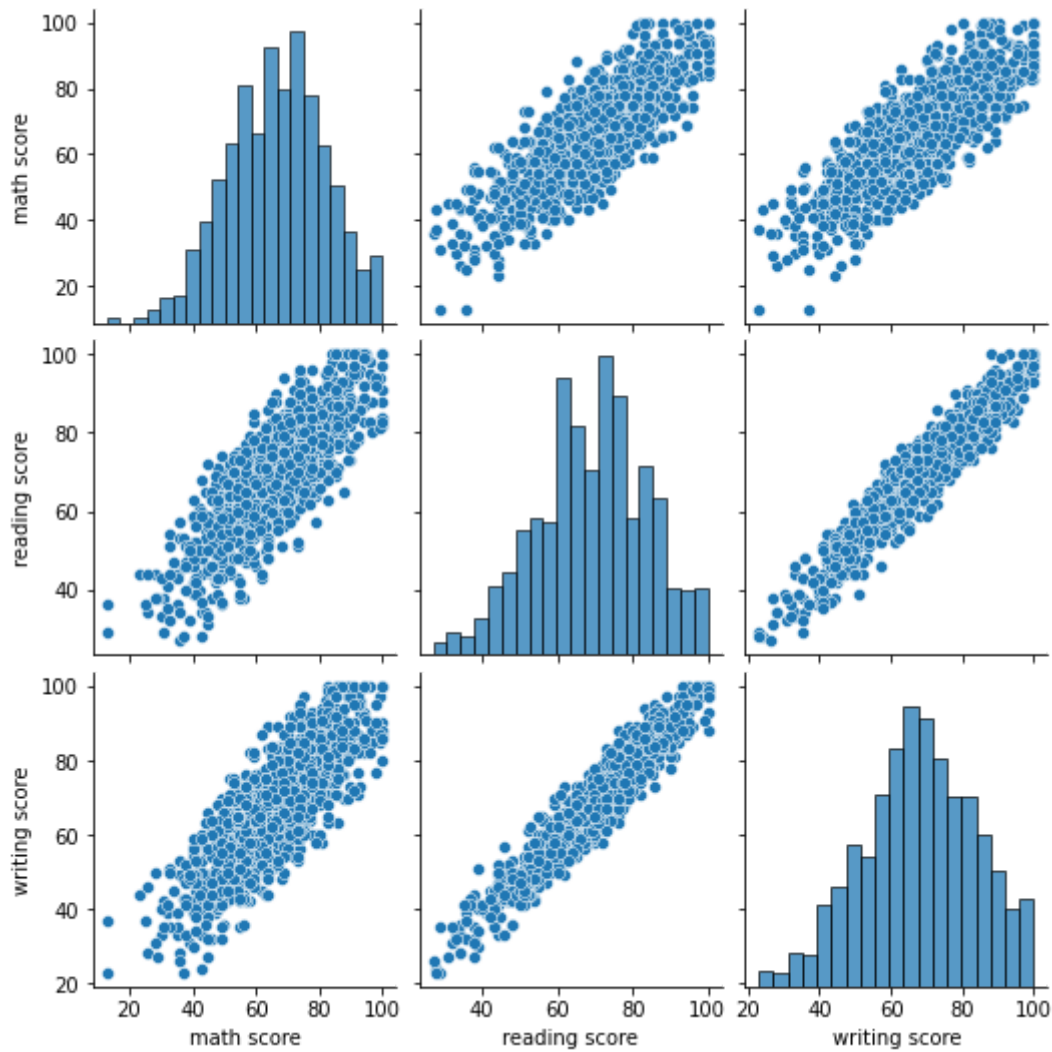
In [9]:

```
#  
sns.boxplot(x="parental level of education",y="math score",data=x,linewidth=3,order=["high  
plt.show()
```



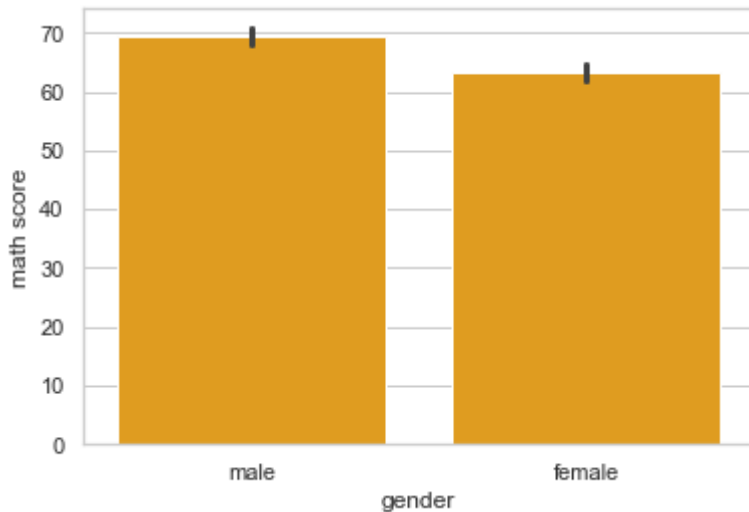
In [10]:

```
sns.pairplot(x)  
plt.show()
```



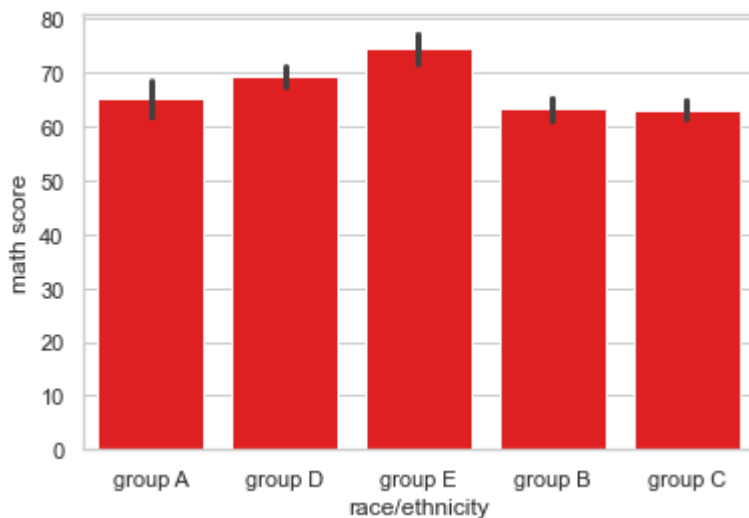
In [11]:

```
sns.set(style="whitegrid")
sns.barplot(x="gender",y="math score",data=x,color="g")
sns.barplot(x="gender",y="math score",data=x,color="r")
sns.barplot(x="gender",y="math score",data=x,color="Orange")
plt.show()
```



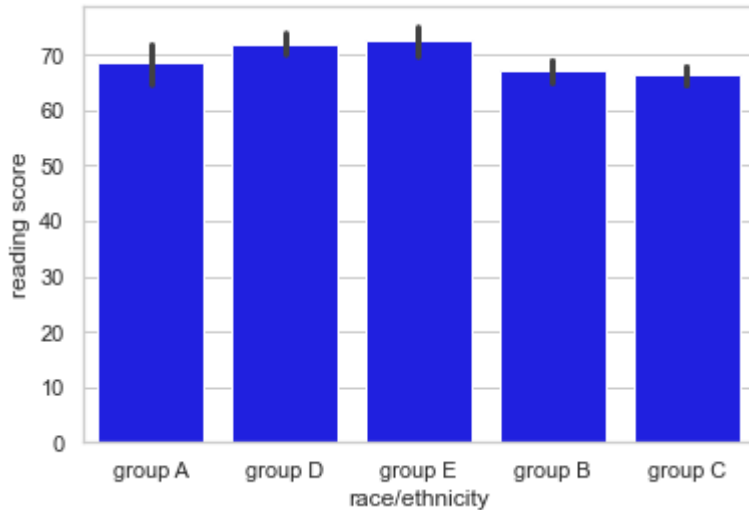
In [12]:

```
sns.set(style="whitegrid")
sns.barplot(x="race/ethnicity",y="math score",data=x,color="g")
sns.barplot(x="race/ethnicity",y="math score",data=x,color="r")
sns.barplot(x="race/ethnicity",y="math score",data=x,color="Red")
plt.show()
```



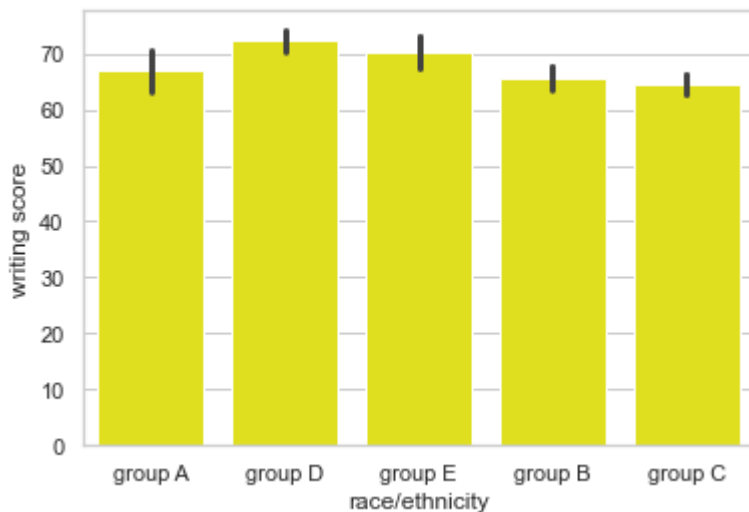
In [13]:

```
sns.set(style="whitegrid")
sns.barplot(x="race/ethnicity",y="reading score",data=x,color="b")
sns.barplot(x="race/ethnicity",y="reading score",data=x,color="y")
sns.barplot(x="race/ethnicity",y="reading score",data=x,color="blue")
plt.show()
```



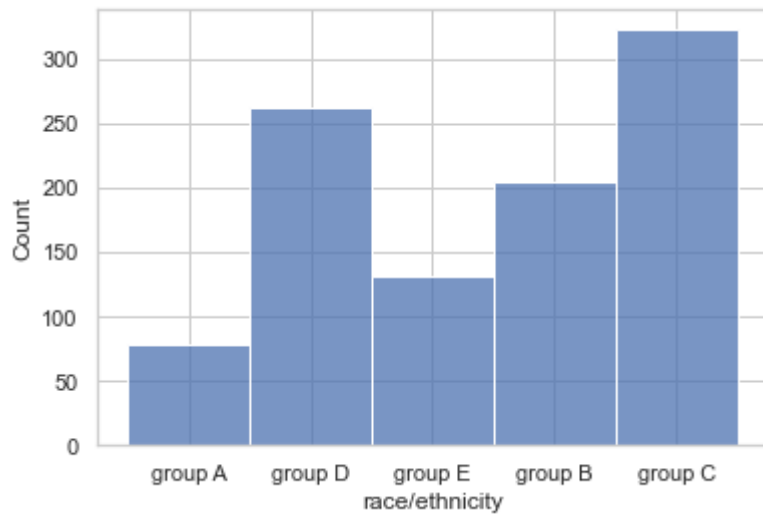
In [14]:

```
sns.set(style="whitegrid")
sns.barplot(x="race/ethnicity",y="writing score",data=x,color="b")
sns.barplot(x="race/ethnicity",y="writing score",data=x,color="y")
sns.barplot(x="race/ethnicity",y="writing score",data=x,color="yellow")
plt.show()
```



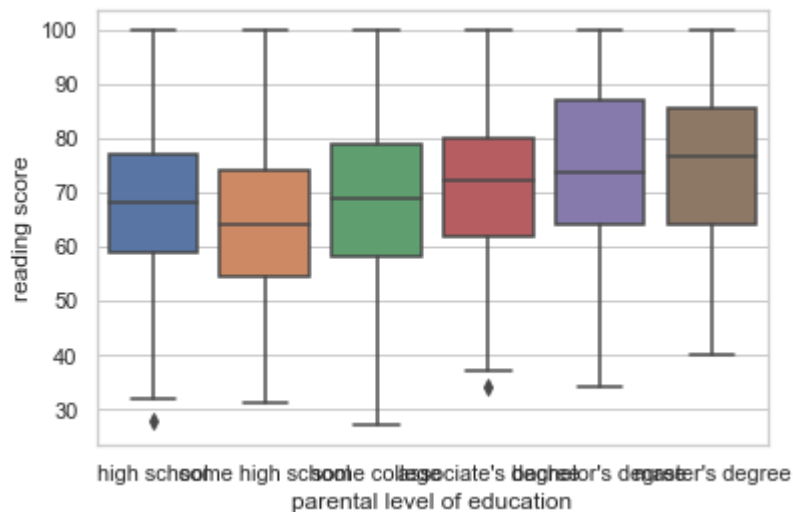
In [19]:

```
# count of four group  
sns.histplot(x['race/ethnicity'])  
plt.show()
```



In [20]:

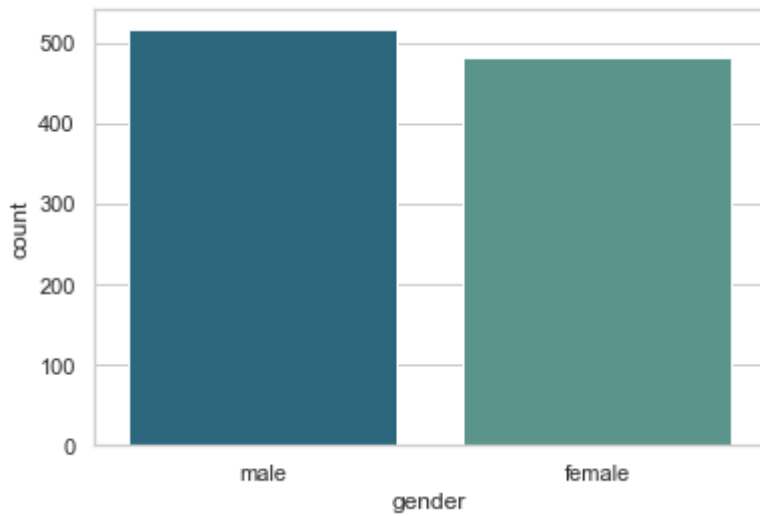
```
sns.boxplot(x='parental level of education',y='reading score',data=x)  
plt.show()
```





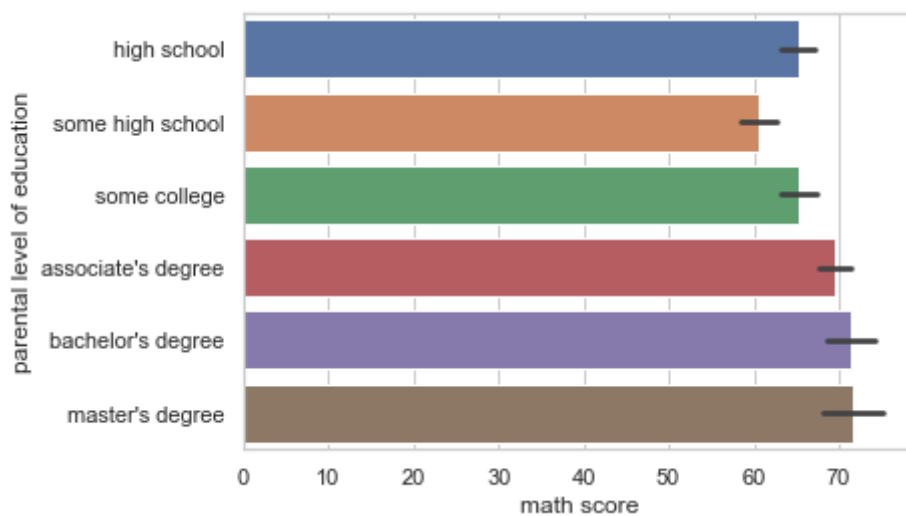
In [21]:

```
# Total count of Gender  
sns.countplot(data=x, x="gender", palette="crest_r")  
plt.show()
```



In [22]:

```
# All over college scored in math score  
sns.barplot(data=x, x="math score", y="parental level of education")  
plt.show()
```



In [ ]: