In [2]:

```
#Import The Differnt Libaries
import pandas as jd
import numpy as pp
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= jd.read_csv('exams.csv')
print(x)
```

gender 0 male 1 female 2 male 3 male 4 male 995 male 996 male 997 female 998 female	group A group D group E group B group E group C group C group C group C group C	some high some contacts of high some contacts of high some high some high some high some associate's of high some contacts and high some high some contacts and high some high some high some contacts and high some hig	school school ollege school degree school degree school ollege	lunch standard free/reduced free/reduced standard standard free/reduced free/reduced free/reduced standard standard	\
test pr 0 1 2 3 4 995 996 997 998 999	reparation course completed none none completed none completed none completed none completed completed none completed	math score reading 67 40 59 77 78 73 85 32 73 65	score 67 59 60 78 73 70 91 35 74 60	writing score 63 55 50 68 68 65 92 41 82 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 leve	l of education	lunch	\
0	male	group A		high school	standard	
1	female	group D	so	me high school	free/reduced	
2	male	group E		some college	free/reduced	
3	male	group B		high school	standard	
4	male	group E	asso	ciate's degree	standard	
		• • •		• • •	• • •	
995	male	group C		high school	standard	
996	male	group D	asso	ciate's degree	free/reduced	
997	female	group C	SO	me high school	free/reduced	
998		group C		some college	standard	
999	male	group A		some college	standard	
_	test pre	eparation course		reading score	writing score	
0		completed		67	63	
1		none		59	55	
2		none		60	50	
3		none		78	68	
4		completed	78	73	68	
		• • •	•••		•••	
995		none		70	65	
996		completed		91	92	
997		none		35	41	
998		none		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]:

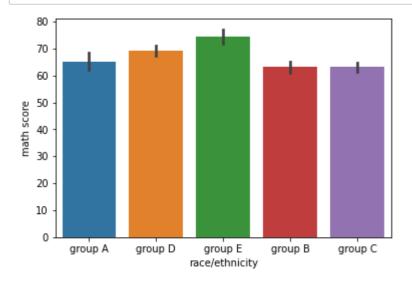
```
# How many students completed test
z = Ex['test preparation course'].value_counts()
print(z)
```

none 665 completed 335

Name: test preparation course, dtype: int64

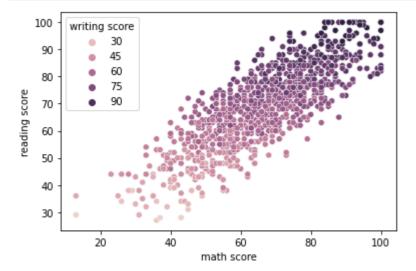
In [7]:

```
#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()
```



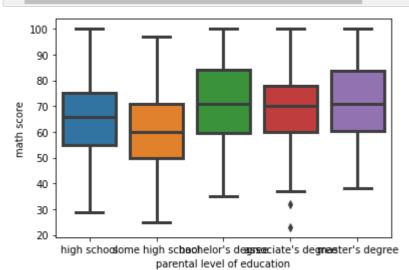
In [8]:

```
#Marks of three subject
sns.scatterplot(x="math score",y= "reading score",data=x,hue="writing score")
plt.show()
```



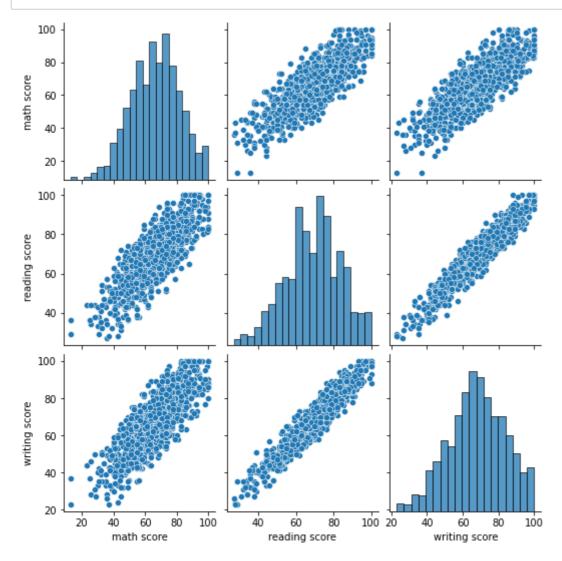
In [9]:

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



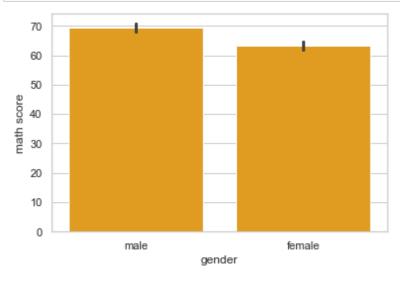
In [10]:

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



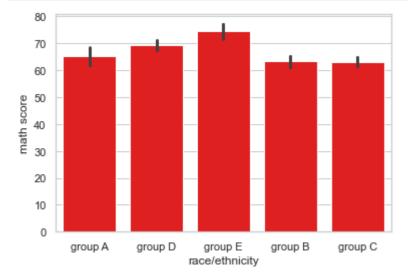
In [11]:

```
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()
```



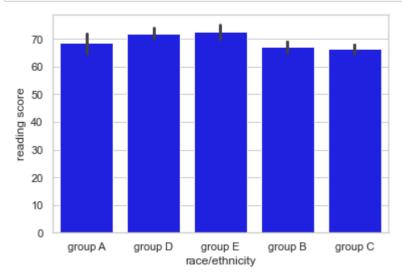
In [12]:

```
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()
```



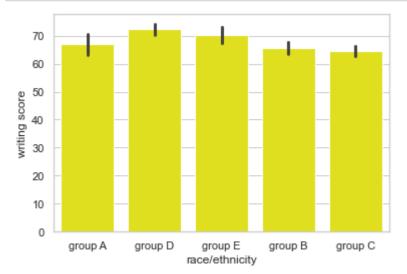
In [13]:

```
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()
```



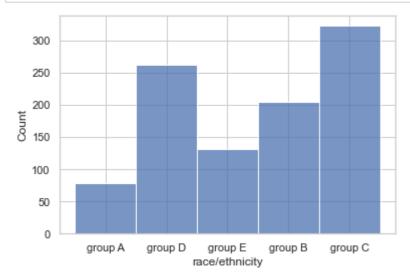
In [14]:

```
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()
```



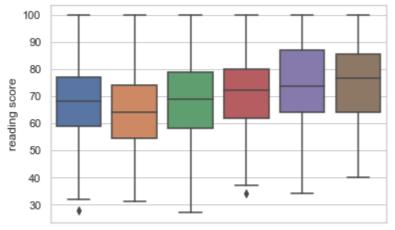
In [19]:

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



In [20]:

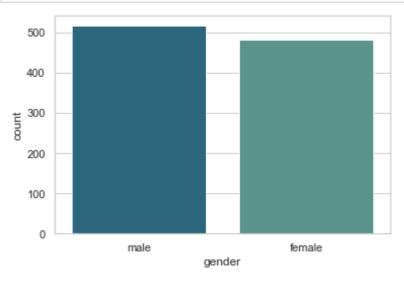
```
sns.boxplot(x='parental level of education',y='reading score',data=x)
plt.show()
```



high schoome high schoome collargeciate's deghetor's degaster's degree parental level of education

In [21]:

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



In [22]:

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

