```
PROBLEM 2
        Part i)
In [1]:
         Part ii)
In [2]:
Out[2]:
                         gdp energy
                       45451
              Austria
                               30633
             Belgium
                       62049
                               58894
              Cyprus
                        2003
                                1211
            Denmark
                       34540
                               27049
              Finland
                       28388
                               26405
                      358675
                              233907
              France
              Greece
                       38039
                               20119
              Iceland
                        1331
                                1124
              Ireland
                       11788
                               11053
                Italy
                      265863
                              192453
               Malta
                        1251
                                 456
         Netherlands
                       82804
                               84416
             Norway
                       27914
                               26086
             Portugal
                       30642
                               12080
               Spain
                      159602
                               88148
              Sweden
                       59350
                               45132
          Switzerland
                       42238
                               23234
              Turkey
                       91946
                               32619
                  UK 279191 268056
           WGermany 428888 352677
         Part iii)
In [3]:
         gdp
         energy
```

Austria Belgium Cyprus

```
Greece
        Iceland
        Ireland
        Italy
        Malta
        Netherlands
        Norway
        Portugal
        Spain
        Sweden
        Switzerland
        Turkey
        UK
        WGermany
        Part iv)
In [4]:
        Austria
                         45451
Out[4]:
         Belgium
                          62049
                           2003
        Cyprus
        Denmark
                          34540
        Finland
                          28388
        France
                         358675
        Greece
                          38039
        Iceland
                           1331
        Ireland
                          11788
                         265863
        Italy
        Malta
                           1251
        Netherlands
                          82804
        Norway
                          27914
        Portugal
                          30642
        Spain
                         159602
        Sweden
                          59350
        Switzerland
                         42238
        Turkey
                         91946
        UK
                         279191
        WGermany
                         428888
        Name: gdp, dtype: int64
        Part v)
In [5]:
        Austria
                          30633
Out[5]:
                          58894
        Belgium
        Cyprus
                           1211
        Denmark
                          27049
        Finland
                          26405
        France
                         233907
                          20119
        Greece
        Iceland
                           1124
        Ireland
                         11053
        Italy
                         192453
        Malta
                            456
        Netherlands
                         84416
```

Denmark Finland France

```
Portugal
                          12080
         Spain
                          88148
         Sweden
                          45132
                          23234
         Switzerland
         Turkey
                          32619
                         268056
         UK
         WGermany
                         352677
         Name: energy, dtype: int64
        Part vi)
In [6]:
                       20.000000
         count
Out[6]:
         mean
                  102597.650000
         std
                  127323.430086
         min
                    1251.000000
         25%
                   28269.500000
         50%
                   43844.500000
         75%
                  108860.000000
         max
                  428888.000000
         Name: gdp, dtype: float64
        Part vii)
In [7]:
         count
                       20.000000
Out[7]:
         mean
                   76787.600000
         std
                  101511.706947
         min
                     456.000000
         25%
                   18109.250000
         50%
                    28841.000000
         75%
                   85349.000000
                  352677.000000
         max
         Name: energy, dtype: float64
        Part viii)
In [8]:
                   127323.430086
         gdp
Out[8]:
         energy
                   101511.706947
         dtype: float64
        Part ix)
In [9]:
Out[9]:
                       gdp energy
            Sweden
                     59350
                             45132
               Italy
                    265863 192453
         Switzerland
                     42238
                             23234
```

26086

Norway

Denmark

34540

27049

```
Part x)
In [10]:
Out[10]:
                       gdp energy
                 UK 279191 268056
               Italy 265863 192453
                      59350 45132
             Sweden
          Switzerland
                     42238 23234
            Denmark
                     34540 27049
         Part xi)
In [11]:
Out[11]:
                       gdp energy
          Switzerland
                     42238
                           23234
            Denmark
                      34540
                           27049
             Sweden
                      59350
                            45132
               Italy 265863 192453
                UK 279191 268056
         Part xii)
In [12]:
         array([ True, False, False, True, False, False, False, False,
Out[12]:
                 False])
         Part xiii)
In [13]:
         76787.6
Out[13]:
                       gdp energy
              France 358675 233907
                Italy 265863 192453
          Netherlands
                     82804
                            84416
               Spain 159602
                            88148
```

gdp energy

UK 279191 268056

	gdp	energy
UK	279191	268056
WGermany	428888	352677