# Practical Task 1

1)

- Costa Rica, Belgium, and Denmark have the lowest gender wage gap.
- Chile, Japan, and South Korea have the highest gender wage gap.
- In 2015, Costa Rica achieved a low gender wage gap due to a combination of robust legal frameworks, social policies, and educational advancements. The country's strong emphasis on equal rights was reflected in laws promoting gender equality in the workplace. Furthermore, initiatives for female empowerment and education led to a more skilled female workforce, narrowing the pay gap. Additionally, the government's focus on social welfare programs contributed to a more equitable distribution of resources and opportunities among genders. These concerted efforts in legislation, education, and social policy culminated in Costa Rica's notably low gender wage gap in 2015.

2)

- There is a sharp increase in the sales of isopropanol in March 2020.
- In March 2020, Covid-19 had become a full blown pandemic, affecting the vast majority (if not all) of countries. Seeing as isopropanol is the main ingredient in hand sanitiser, and there was a major emphasis by governments worldwide on maintaining clean hands, it is not surprising to see the sales of isopropanol increase dramatically as the use of alcohol based hand gels increased.

3)

- In Africa, we see low GDP per capita correlating with low CO2 emissions per person, suggesting that the continent's economies are less industrialized and have a smaller carbon footprint on a per-person basis. The data points for Africa are concentrated at the lower end of both axes, indicative of its status as primarily developing economies with lower industrial emissions.

  The Americas exhibit a diverse range of GDP and CO2 emissions. This reflects the mix of developing and developed economies within the continent, where there is an upward trend that shows as GDP per capita increases, so do CO2 emissions per person. This suggests a direct relationship between economic growth and carbon emissions.

  Asia's data points cover an extensive range, indicative of the continent's vast economic disparities and the recent rapid industrial growth of countries like China and India. There's a steep upward trend, pointing to a strong correlation between economic development and increased CO2 emissions per person, highlighting the impact of industrialization on emissions.

  Europe's trend line has a flatter slope compared to Asia, which may indicate better energy efficiency or greater implementation of emissions-reducing technologies. The continent's data points are generally positioned higher on the GDP axis and show moderate to high emissions per person, consistent with its developed economies.

  Oceania's data points, though limited, typically show high GDP per capita and CO2 emissions per person, with a spread not as extensive as in the Americas or Asia. This is likely due to the economic dominance and industrial activities of Australia and New Zealand within this dataset.

The overarching pattern across all continents is that economic development tends to be associated with higher CO2 emissions per person. However, this association varies in strength across different regions, influenced by the level of industrial development, energy sources, and environmental policies. The data reflects a global trend where increased wealth is often linked to increased emissions, yet with regional variations that suggest opportunities for decoupling economic growth from carbon emissions.

## Practical Task 2

- The graph with “rooms per dwelling” on the x-axis and “median house value” on the y-axis best represents Boston’s population. Based on this graph, Boston tends to have a low crime rate, but there are some areas that show high rates of crime.
- The average number of rooms per dwelling is around six rooms.
- The correlation shows that the higher the number of rooms, the higher the median house value.
- The majority of houses are relatively old.
- The majority of old houses have lower value, in comparison to newer houses. However, only a small proportion of old and new houses have high value.