Question No 1

- Costa Rica, Belgium, Denmark
- Korea, Japan, Chile
- Costa Rica's gender wage gap was only 4.6% in 2015, a significant drop when compares to Korea. Several factors contributed to this success. Firstly, the country has a robust legal framework that supports gender equality and prohibits discrimination. The Labor Code mandates equal pay for work of equal value, regardless of gender. Secondly, Costa Rica invested heavily in education and health, leading to increased female labor force participation and more women in leadership roles. The government implemented policies supporting women's entrepreneurship and providing access to credit and financial resources. Finally, a strong culture of gender equality in Costa Rican society has helped reduce gender-based discrimination in the workplace. This success resulted from a combination of legal, social, and economic factors that created a supportive environment for women's empowerment and equality

Question No 2

- The graph illustrates the sales pattern of isopropanol in the USA market from May 2019 to March 2020, with minor fluctuations ranging the price from 45 to 55 US CTS/lb. However, there was a sudden and prominent surge in the sales price of isopropanol from approximately 50 to 110 US CTS/lb in just one week during 2020. This represents a significant deviation from the established pattern of isopropanol sales in the USA over the past few months.

- There are few reasons for this significant surge in price of isopropanol in March 2020.

    1. COVID-19 pandemic: The outbreak of the COVID-19 pandemic in early 2020 resulted in a high demand for disinfectant products such as hand sanitizers and surface cleaners.

    2. Supply chain disruptions: The pandemic also disrupted global supply chains, leading to shortages in many raw materials, including isopropanol. This could have resulted in a sudden increase in the price of isopropanol due to limited availability.

    3. Panic buying: Panic buying could have also played a role in the sudden surge in isopropanol sales.

    These are the main reasons that can impact on the market of Isopropanol.

Question No 3

- The given bubble plot chart provides a visual representation of the relationship between CO2 emission per person and GDP per capita for countries across different continent. The colours and the sizes of the plots allow us to compare and these variables and observe any pattern or trends that may exist between them.

    When we observe the given plots, we can clearly notice that there is a general trend of counties with higher GDP per capita associated with higher CO2 emission per person. This is common for all continent regardless of the size of the county or the population.

    In Asia, we can observe that countries with higher GDP tent to have higher CO2 emission per person. It is clear that countries such as Singapore, Qatar and Macau have low population, higher GDP per capita

and higher CO2 emission per person. Even though counties like China, India, Indonesia, Pakistan and etc... have the largest population, they have an average level of CO2 emission per person as per the bubbles plot chart.

For Europe, we can see that countries have the highest GDP per capita and also tend to have higher CO2 emissions per person (Luxembourg, Switzerland, and Norway). In contrast, countries like Ukraine and Moldova have lower GDP per capita and lower CO2 emissions per person.

In America, we can observe the same trend that countries like the United States and Canada have higher GDP per capita and higher CO2 emissions per person, while countries have lower GDP per capita and lower CO2 emissions per person.

In Africa, there is a noticeable difference on how the red coloured plots have been spread throughout the chart. Majority of the countries in Africa have lower level GDP per capita and CO2 emission per person while countries like South Africa, which has a high GDP per capita and high CO2 emission per person, and Nigeria, which has a lower GDP per capita and lower CO2 emission per person.

In summary, the bubble plot suggests that there is a positive relationship between CO2 emissions per person and GDP per capita for all continents represented. However, it is important to note that there may be other factors that we need to consider if we want to come to a final conclusion, such as differences in energy sources and environmental policies, which may influence CO2 emissions and GDP per capita.