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Practical Task 1

Which three countries have the lowest gender wage gap?

1. Costa Rica
2. Belgium
3. Denmark

Which three countries have the highest gender wage gap?

1. Korea
2. Japan
3. Korea

Do some research on the country with the lowest gender wage gap and comment on why you think it succeeded in achieving a low gender wage gap in 2015 (max. 150 words)

Costa Rica managed to reduce the pay gap between men and women in 2015 for a few reasons. Firstly, the government took steps to make sure women had equal opportunities. They passed a law in 1990 to make sure men and women had the same rights. The government also created programs to help women participate fully in different aspects of life. Over time, these changes meant that more women could get an education, leading to better job chances and possibly higher pay.

Additionally, there was a push to make sure the laws about equal pay were followed. In 2015, a group called the National Institute for Women ran a special campaign. They wanted to make sure people knew about the Equal Pay Law and encouraged women to speak up if they were getting paid unfairly. This campaign likely made more women aware of their rights and led to better enforcement of the law by the Ministry of Labor and Social Security. All these efforts together helped Costa Rica achieve a more equal pay situation in 2015.

Explain what is happening in the graph during March 2020 with regards to isopropanol sales (max. 100 words).

All 3 lines in the graph had a sharp rise in sales in March 2020.

Describe a possible reason for the observation you made about isopropanol sales in March 2020 (max. 100 words). Hint: Isopropanol is the main ingredient in hand sanitiser.

From looking at the graph, we can see a large jump in isopropanol sales, which is the main ingredient in hand sanitizer, particularly in March 2020. This increase in sales is probably because of the COVID-19 pandemic when everybody quickly wanted and needed a lot more hand sanitizer. There was a

high demand for hand sanitizer to stay clean and avoid getting sick, so that's likely why there's a spike in isopropanol sales during that time.

Discuss the relationship between CO2 emissions per person and GDP per capita for each continent listed in the figure legend (max. 350 words).

From looking at the scatter plot I can see a positive Correlation where there is an upward trend, which reveals that as each country within each continent grow wealthier which means there GDP per capita increase, also their CO2 emissions per person tend to rise. This likely is because more increased energy is being used in many different industries. However, despite these trends, each continent paints a unique picture. For example, Africa showcases a vast range of emissions only emitting less than 1 tonne per person, whilst America, Europe, Asia surpasses 10 tonnes however the ranges vary between continents within them countries. This arises from many different factors such as how developed the country is, the population, and what type of energy is being used or available. Also, Asia there is a number of continents who emit a variety of emission from 0.10 to up to 10.00 tonnes of emissions per person in specific continents which the country belongs to. Lastly, in Oceania emissions are much lower compared to Europe or America. However, Oceans emissions reach the higher emissions of 10 tonnes but in far less continents and their population are much smaller.

Overall, the relationship between CO2 emissions per person and GDP per capita is complex and varies from country to country. However, there is a general positive correlation but there are many contributing factors that can influence CO2 emissions for a country, for instance, the level of economic development.

Practical Task 2

● **Which graph best represents the population of Boston as a whole? Based**

on this graph, explain whether Boston has a high or low crime rate.

Based on the first Bar graph, Boston has a high crime rate.

● **What is the average number of rooms per dwelling in Boston?**

Average number of rooms per dwelling in Boston is 6.

● **What is the correlation between Rooms per Dwelling and Median House**

Value?

There is a positive correlation because as the number of rooms per dwelling increases, the median house value also tends to increase.

● **By determining what percentage of units were built before 1940, are the**

majority of the houses relatively old or new?

Relatively old.

● **What is the correlation between the Percentage of Units built before 1940**

and the Median House Value?

There is not clear correlation between the percentage of units built before 1940 and the median house value. The data points remain spread out and don't show a positive or strong trend.