Quantifying The World In Data (Mock Assessment)

**Defining objects as data**

1. Choose an object to define: e.g. near you or something you like or want to understand better.

iPhone

1. Describe the object in at least 100 words.

An iPhone is an electronic device developed by Apple Inc. that has become integral to modern life. It is a handheld communication, featuring a touchscreen interface, comparable to a “handheld computer”. iPhones have evolved to encompass a wide range of functions beyond making calls and sending texts. They can connect to the internet, run applications, capture photos and videos, provide navigation, and serve as entertainment. IPhones are known for their sleek design, portability, and convenience due to their intuitive interface. They are available in various models, each with unique features, camera capabilities, and price points, catering to a diverse consumer base and their preferences.

1. Quantify the object into (at least 10) variables.

*iPhone Model*: The specific iPhone version, such as iPhone 12, iPhone 13, etc.

*iOS Version*: The version of the iOS operating system running on the iPhone.

*Price*: The cost of the iPhone, which may vary by model and storage capacity.

*Storage Capacity*: The amount of internal storage available on the iPhone.

*Camera Specifications*: Details about the camera(s), including resolution, lens quality, and special features.

*Screen Size*: The physical dimensions of the iPhone's display.

*Battery Life*: The duration the iPhone can operate on a single charge.

*Processing Power*: The CPU and RAM specifications determining the device's performance.

*Security Features*: Any unique security features such as Face ID, Touch ID, or encryption.

*User Satisfaction*: User ratings and reviews reflecting customer satisfaction.

1. Form a data-driven research question based on your variables and the description of the object.

What is the impact of iPhone ownership on individuals' digital behavior and daily routines, and how does this usage vary across different iPhone models and generations? Specifically, how does owning an iPhone influence factors such as screen time, app usage patterns, online shopping habits, productivity, and social interactions? Additionally, I want to investigate whether there are significant differences in these behavioural aspects based on the age and model of the iPhone owned.

**Defining phenomena as data**

1. Choose a phenomenon to define: e.g. near you or something you like or want to understand better.
2. Describe the phenomenon in at least 100 words.

Commuting is a widespread phenomenon in the modern world, involving the daily movement of individuals from their residences to workplaces, schools, or other destinations and back. It is a fundamental aspect of urban life and affects various aspects of society, including transportation infrastructure, environmental sustainability, and personal well-being. Commuting can occur by various modes of transport, such as cars, public transit, bicycles, walking, or a combination of these. The experience of commuting varies greatly based on factors like distance, transportation options available, traffic conditions, and urban planning. Additionally, commuting patterns can have significant implications for energy consumption, air quality, and stress levels.

1. Quantify the phenomenon into (at least 10) variables.

*Mode of Transportation*: The means by which individuals commute (e.g., car, bus, train, bicycle, walking).

*Commute Distance*: The length of the journey between the home and the destination.

*Commute Duration*: The time spent traveling to and from the destination.

*Commute Frequency*: How often individuals engage in commuting (e.g., daily, weekly).

*Traffic Conditions*: The level of congestion or ease of travel during the commute.

*Commute Route*: The specific path or route taken during the commute.

*Environmental Impact*: The ecological effects of the chosen commuting mode.

*Work Arrangements*: Whether individuals work from home, have flexible hours, or follow a traditional work schedule.

Socioeconomic Factors: Income, employment type, and access to transportation options.

Stress Levels: The psychological and emotional impact of commuting on individuals.

1. Form a data-driven research question based on your variables and the description of the phenomena.

How does the daily commuting experience impact individuals' mental health and overall well-being? Furthermore, what are the specific coping mechanisms or interventions that mitigate the negative psychological effects of commuting, and what is the long-term effect on individuals’ mental health, of this phenomena?