PC vs Mac Computers Activity

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Deliverables:

- Activity 1: Table (2 points): A PC vs Mac comparison table
- Activity 2: Definition lists (1 point)
- Activity 2: Response (2 points): Please respond to the question below.

Activity 1:
Use the table below to compare 2 PC laptops and 2 MAC laptops. You are going to select 1 company/brand for PC. MAC you will use Apple. For PCs and MACs, you will define what you consider low-end or high-end laptops. Examples could be based on price, technologies, so forth. I started you off with 2 features I would like for you to explore, however, I will need 8 more features to be identified and explored.

	PC1 (Low end)	PC2 (High end)	MAC1 (Low end)	MAC2 (High end)
Company or brand	Asus	Asus	Apple	Apple
Model	ASUS - ROG Zephyrus G16 16" OLED 240Hz Gaming Laptop - Intel Core Ultra 9 - 16GB LPDDR5X - NVIDIA GeForce RTX 4070 - 1TB SSD - Eclipse Gray	ASUS - ROG Strix SCAR 18” 240Hz Gaming Laptop QHD - Intel 14th Gen Core i9 with 32GB Memory - NVIDIA GeForce RTX 4090 - 2TB SSD - Off Black	MacBook Air M3	MacBook Air M5
Price	$1800 (best buy)	$3,899.99 (on sale at best buy)	$1,099 (AppleStore Sale)	$1,699 (Apple Store)
Hard drive memory	**1TB SSD**	**2TB SSD** (Solid State Drive)	**256GB SSD** (with options to upgrade).	**2TB SSD**
RAM memory	**16GB**	**32 GB**	**8GB** of unified memory (expandable up	**24GB** unified memory

			to 24GB at additional cost).	
Display, inches	16”	18 inch	**13.6 Inches**	13.6 inches
Resolution	2560 x 1600 pixels	2560 x 1440 pixels QHD (Quad High Definition	**2560 x 1664 pixels** (Liquid Retina display)	2560 x 1664 pixels
Refresh rate	240Hz	240Hz	60Hz	60Hz
Panel Type	OLED	IPS	IPS	Retina
CPU	Intel Core Ultra 9 (likely the 14th Gen Intel Core i9 series)	Intel Core i9 (14th Gen)	**8-core CPU**	Apple **M3 chip** with an **8-core CPU**
Battery life (up to)	10 hours	4-8 hours with normal usage 1-3 hours with intense gaming usage	18 hours of battery life for activities like video playback. Up to 15 hours of web browsing over Wi-Fi.	18 hours 56 min
USB Ports	2 x USB-A 3.2, 2 x USB-C 3.2 (with Thunderbolt 4 and DisplayPort support)	Several USB-A and USB-C ports, including Thunderbolt 4	2 Thunderbolt / USB 4 ports MagSafe 3 port 3.5mm headphone jack	2 USB-C ports
Weight, pounds	4.41lbs	6.6 - 8.8lbs	2.7lbs	2.7lbs

Activity 2:
Definition lists.
For every feature you identified, please define what it is below.

Hard drive memory:

- **SSD is a solid-state drive (SSD)** with a storage capacity of one terabyte, which is equal to 1,000 gigabytes or 1,000,000 megabytes.

- **Ram Memory**- Random-access memory is a form of electronic computer memory that can be read and changed in any order, typically used to store working data and machine code.

- **Refresh Rate:** the frequency with which the image on a computer monitor or similar electronic display screen is refreshed, usually expressed in hertz (Hz).
- **CPU** - **(Central Processing Unit):** The "brain" of the computer, responsible for processing tasks and running applications.
- **USB (Universal Serial Bus)-** is a standard for connecting peripherals to a computer, such as keyboards, mice, storage devices, and other hardware.

- **Cores:** Physical units in the CPU that handle tasks. More cores allow for better multitasking.
- **Unified Memory:** Unified memory is a modern memory technology that combines RAM and a hard drive into a single memory pool.
- **Thunderbolt 4:** A high-speed port for data transfer, video output, and charging. It is an upgraded cable connection interface from Intel capable of powering your devices, transferring data, and displaying a video source to an external monitor all at once — all with just one port.
- **Pixels (Liquid Retina display):** a basic unit of programmable color on a computer display or in a computer image.
- **TB:** In computers (terabytes) is a unit of digital storage equal to 1,024 gigabytes (GB) or about one trillion bytes.

Example:
Feature 1 – Description of feature.

<u>Resolution</u>

- **QHD** - **Quad High Definition (QHD)** is a display resolution that measures 2560 x 1440 pixels, offering a higher pixel density than standard HD displays.
- **Liquid Retina display -** A Liquid Retina display is a type of display technology used in Apple products that offers high brightness, contrast, and dynamic range. Apple uses the term Liquid Retina display to differentiate between its LCD and OLED displays, which have different resolutions, refresh rates, color reproduction, and contrast levels.

<u>Panel type</u>

- **OLED (Organic Light-Emitting Diode):** A type of display technology known for deep blacks, high contrast, and vibrant colors because each pixel emits its light.
- **IPS** - (in-plane switching) is a type of liquid-crystal display (LCD) panel that uses a layer of liquid crystals sandwiched between two glass surfaces
- **Retina [display] -** an Apple branded display panel series of LCDs (liquid crystal display) and OLED displays that have a higher pixel density than traditional displays.
  (The Super Retina and Super Retina XDR displays overcome challenges with traditional OLED displays with their high brightness, wide color support and incredible color accuracy. If you look at an OLED display off-angle, you may notice slight shifts in color and hue.)
- **Form Factor**: Refers to the design and size, such as ultrabooks (thin and light) or 2-in-1 laptops (can convert into tablets).

CPU: The "brain" of the computer, responsible for processing tasks and running applications. The more cores a CPU has, the more tasks it can perform at the same time

- **Intel Core Ultra 9 -** “designed to handle the most demanding gaming titles with ease.” (Dell)
- **Intel Core i9 (14th Gen) -** “The Intel® Core desktop processors (14th gen) deliver the ultimate immersive experience for gaming and creating. This new generation of processors continues to utilize Intel's performance hybrid architecture1 to optimize your gaming, content creation, and productivity.” (Intel)
- **8-core CPU -** (aka: octa-core CPU) central processing unit (CPU) with eight processing units, or cores, that can execute instructions simultaneously.
- **Apple M3 chip with an 8-core CPU -** “M3 has an 8-core CPU, with four performance cores and four efficiency cores, that is up to 35 percent faster than M1 for CPU performance.” (Apple) … “deliver dramatic performance improvements, a faster CPU and Neural Engine, and support for more unified memory”

Activity 3:

Based on what you found between PC and Mac computers, which one would your team choose and why? Please support your response, thoughts, and ideas based on your table findings.

Based on what we found between PC and Mac computers and personal experience, we chose Mac because of its speed and updated design. We also chose Mac computers because of its strong security features, lightweight design, helpful integration with other Apple products, for example, iCloud, Airdrop, and Handoff & Continuity, and overall user-friendly experience, making it ideal for personal and professional use.