The ancient Egyptians invented the 24-hour day, dividing it into two cycles of 12 hours. This division may have come from observing star patterns or from the Sumerian base-12 number system. The Mesopotamians (Babylonians) created the idea of the 60-minute hour, but in early history, measuring the year was more important than measuring the day. The Egyptians created the 365-day calendar. They adapted the Babylonian 360-day calendar by adding five extra days dedicated to feasting. Their year consisted of three seasons—Akhet (Flood), Peret (Growing), and Shemu (Harvest)—each with four 30-day months. This system helped them plan farming activities. To tell time, Egyptians invented two types of clocks: Sun clocks They used obelisks, which cast shadows to mark parts of the day. A portable sundial called a shadow clock appeared around the time of Thutmose III (c. 1500 BC). One famous model is an L-shaped sundial with marks that indicate hours. Sundials worked only in sunlight, not on cloudy days or at night, and could not measure minutes or seconds accurately. A significant discovery is a 13th-century BC sundial found in the Valley of the Kings. Workers carved a semicircle divided into 12 sections on a limestone chip. It may have been used to regulate work hours or relate to the 12-hour journey of the sun god through the underworld. Although obelisks resemble sundials, modern scholars argue that their main purpose was religious and commemorative, not timekeeping. Only when obelisks were moved to Rome and Paris were they used as sundials. Water clocks (clepsydras) Developed around the 15th century BC, these worked by letting water drip from a hole at a constant rate. Marks inside the container showed the passing hours. They were useful at night, unlike sundials. Their weakness was maintaining constant water pressure, and they could not accurately match the changing lengths of daytime hours throughout the year. Egyptian timekeeping faced problems because the length of daylight changed with the seasons, so they used "temporary hours," meaning hours were longer in summer and shorter in winter. Egypt's location near the equator reduced this variation, making sundials more practical there.

Multiple-Choice Questions

1. Why did the ancient Egyptians divide the day into two cycles of 12 hours?
A. Because Egyptian mathematics was based entirely on the number 12
B. Because they observed patterns in the stars or used a base-12 system from Sumerians
C. Because the sun rose and set exactly 12 times a day
D. Because earlier calendars required days to be divided into equal halves

2. How did the Egyptian calendar differ from the Babylonian system?
A. The Egyptians used fewer days but more months
B. The Egyptians replaced the Babylonian calendar with a lunar cycle
C. The Egyptians added five extra days to the Babylonian 360-day model
D. The Egyptians removed feast days to create a simpler year

3. What made the Egyptian 365-day calendar useful for agriculture?
A. It matched the changing lengths of daylight exactly
B. It created predictable farming seasons linked to the Nile
C. It allowed farmers to measure minutes and seconds accurately
D. It prevented floods from occurring unexpectedly

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4. According to modern scholars, why were obelisks *not* originally used as sundials?
A. They were too small to cast useful shadows
B. Their inscriptions recorded mathematical calculations only
C. Their primary purpose was religious and commemorative
D. They were built in areas with little sunlight

5. What was one major limitation of shadow clocks or L-shaped sundials?
A. They required complicated mathematical training
B. They could not function without direct sunlight
C. They were too heavy to be moved easily
D. They could only measure time during the night

6. Why were water clocks unable to measure time accurately throughout the year?
A. They used saltwater, which evaporated quickly
B. They depended on constant water pressure, which was difficult to control
C. They froze during winter months
D. They relied on sunlight to work properly

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