Ada Lovelace Reading Comprehension
Name _____

Ada Lovelace, known today as the first computer programmer, was born Augusta Ada Byron in London in 1815. She was the daughter of the famous poet Lord Byron. Her father died when she was eight, and as she grew up, her mother made sure she was taught math and science in hopes of preventing her from developing the mood swings and temper of her father. Lovelace's early education resulted in her developing a curiosity and talent for numbers and language. Her learning pursuits brought her into contact with scholars and important figures such as Charles Dickens and Michael Faraday.

At age seventeen, Lovelace met mathematician and inventor Charles Babbage. Babbage connected her to University of London professor Augustus de Morgan, under whom she began studying. Babbage, today considered the father of the computer, invented the difference and analytical engines to perform mathematical calculations. These engines laid the groundwork for modern-day computation with computers.

Lovelace was tasked with translating one of Babbage's articles on the analytical engine from French to English. She not only translated the article, but also added her own notes and thoughts to it as she went; the notes she took were three times longer than the article itself. Lovelace believed that the analytical engine could be used to process letters and symbols rather than numbers alone and she is credited with writing the first algorithm meant to be carried out by a computer. She also wrote in her notes a method for the engine to repeat certain instructions over and over—the foundation for modern-day loops – an essential part of modern programming. Lovelace's notes were published in an English science journal in 1843 under her initials A. A. L.

Ada Lovelace received little to no acclaim for her ideas while she was alive. She died of cancer in 1852. Almost a century later, Lovelace's works were finally introduced back into the scientific sphere by B. V. Bowden. Her notes were republished and finally appreciated for their insight into coding and programming techniques – although there are those that dispute the actual scientific value of her contributions and question whether the ideas she presented were original. Ada Lovelace received many honors for her work after her death; in 1980, the United States Department of Defense named a computer language "Ada" in her honor.

1. **Why did Ada's mother insist on her learning math and science?**
   A. To make sure she could compete with men who were learning math and science
   B. To make sure she could become a professor or get an engineering job
   C. To prevent her from suffering mood swings and temper tantrums like her father
   D. To help her become one of the first computer programmers

2. **Charles Babbage…**
   A. invented the first programming language.
   B. invented the difference and analytical engine.
   C. believed his invention could be used for tasks other than math calculations.
   D. met Ada Lovelace when he was seventeen.

3. **How did Ada Lovelace influence modern computing? Select all that apply.**
   A. She wrote about a programming method realized today as loops
   B. She believed that computers could take on tasks apart from computing numbers
   C. She wrote the first algorithm meant to be carried out by a computer
   D. She was a successful and trusted translator who knew both English and French

4. **Which question is NOT answered?**
   A. When did Ada Lovelace receive credit for her groundbreaking notes on computing?
   B. How is Ada Lovelace honored today?
   C. Who introduced Lovelace's work into the modern scientific journals?
   D. What did Charles Babbage think of Lovelace's ideas on computing?

5. **Which of the following statements concerns her "detractors?"**
   A. … there are those that dispute the actual scientific value of her contributions and question whether the ideas she presented were original.
   B. Almost a century later, Lovelace's works were finally introduced back into the scientific sphere by B. V. Bowden.
   C. Lovelace believed that the analytical engine could be used to process letters and symbols rather than numbers alone and she is credited with writing the first algorithm meant to be carried out by a computer. He developed theorems of modular forms.
   D. Ada Lovelace unfortunately received little to no acclaim for her ideas while she was alive.

6. **Based on the information in the passage, which of the following expressions describes Ada Lovelace?**
   A. Back to the future
   B. In the weeds
   C. Ahead of her time
   D. Out of her league

7. **Which of the following is an accurate description of the four paragraphs in the passage?**
   A. 1 >> Ada's Early Years, 2 >> Ada's Education, 3 >> Ada's Legacy, 4 >> Ada's Discoveries
   B. 1 >> Ada's Early Years >> 2 Ada's Family >> 3 Ada's Discoveries, 4 >> Ada's Legacy
   C. 1 >> Ada's Early Years, 2 >> Ada's Education, 3 >> Ada's Discoveries, 4 >> Ada's Legacy
   D. 1 >> Ada's Family, 2 >> Ada's Early Years, 3 >> Ada's Discoveries, 4 >> Ada's Future