Benjamin Banneker

A Lesson Worksheet

Benjamin was born on November 9, 1731 to Mr. And Mrs. Robert Banneky. At the age of fifteen, he had the equivalent to an eighth grade education. He was considered by his close family and friends to be a very ingenious man in mathematics, but faced difficulty with the white supremacists of the time, including Thomas Jefferson. He overcame these challenges and worked on two very important problem-solving techniques.

During Banneker's time, false position problems were widely employed for algebra and geometry problems. False positioning is the applying of "false" numbers, or guesses, to an algebraic or geometric equation and using it to find the exact answer to the problem. We know that Banneker used this method although documentation is scarce; his house and all the documents within were destroyed by fire on the day of his funeral.

This worksheet focuses on two such false position problems that Banneker might have worked on during his life.

1) The sum of a quantity and its 1/7 is 19. Using single position, solve this equation.

2) A ladder is placed between two walls that are 60 ft. apart. IT reaches a 37 ft. high window on one wall, and without moving the bottom, reaches a window 23 ft. high on the other wall. How far apart are the walls? (Hint: Use the double false position method)

The Double False Position equation: $\frac{(x_2)(f(x_1)-(x_1)(f(x_2)}{f(x_1)-f(x_2)}$