The Doomsday Model

In 1960, Heinz von Foerster, Patricia Mora, and Larry Amiot, three scientists from the University of Illinois, published "Doomsday: Friday, 13 November, AD 2026" in the journal *Science*. In their paper, they considered the past population growth of the world and the current state (as of 1960) of the world's resources and their ability to sustain a certain population. They developed a model to describe population growth. A simplified variation of this model, where *t* represents the year and *P* represents the world population in billions, is:

$$P = \frac{195}{2026 - t}$$

They used this rational function to decide when the world's population would reach an unsustainable level and called this date "doomsday."

Use the Internet to obtain world population data since 1960. How well did the Doomsday Model describe the world's population growth between 1960 and 2000? How well does the model describe the world's population today? Based on the population data you found, how would you revise the model? When does this model predict "doomsday" will occur?

Share your results and your revised model with the group.