Some consideration concerning wave interference.

If the two waves have different frequencies (periods) then the resulting addition of the two waves will have an oscillating interference pattern. The "beat" frequency is the difference between the two wave frequencies. As the two frequencies get closer the beat frequency gets very small (a long period). When you can barely discern a beat frequency the two frequencies match. This is the basis of tuning musical instruments.

You can use LoggerPro or Excel (or any spreadsheet program) to model this...

