EXERCISE 3.4: Consider the case where the harmonic frequencies are not integers, for example, $\{f_k\} = \{3.5, 5.6, 9.8\}$ (in Hz). It might be possible to find a scaling constant λ such that λf_k is an integer for all k. In this particular case, $\lambda = 10$. Now we can use the gcd on the scaled frequencies as follows:

 $F_0 = (1/\lambda) \operatorname{gcd} \left\{ \lambda f_k \right\}$

Apply this result to find the fundamental frequency for {3.5, 5.6, 9.8} Hz.

McClellan, Schafer, and Yoder, *DSP First*, 2e, ISBN 0-13-065562-7. Prentice Hall, Upper Saddle River, NJ 07458. ©2016 Pearson Education, Inc.

