Introduction to DSP: Signals - Assignment

1. Determine which of the following signals are periodic, and find their fundamental period.

   (a) $\cos\left(0.123\pi n - 0.6\pi\right)$

   (b) $\sin\left(0.1\pi^2 n\right)$

   (c) $\sin\left(0.1\pi n\right) + \cos\left(0.23\pi n + 0.13\pi\right) + \sin\left(0.43\pi n\right)$

   (d) $\exp\left(-j0.423\pi n\right)$

   (e) $0.123 \times (n \bmod 10)$

   (f) $\sqrt{2} \times (n \bmod N)^2$