## 1

## GATE 2023-EE Q49

## EE23BTECH11052 - Abhilash Rapolu

**Question 49**: The period of the discrete-time signal x[n] described by the equation below is N = (Round off to the nearest integer).

$$x[n] = 1 + 3\sin\left(\frac{15\pi}{8}n + \frac{3\pi}{4}\right) - 5\sin\left(\frac{\pi}{3}n - \frac{\pi}{4}\right)$$

[EE,GATE-2023]