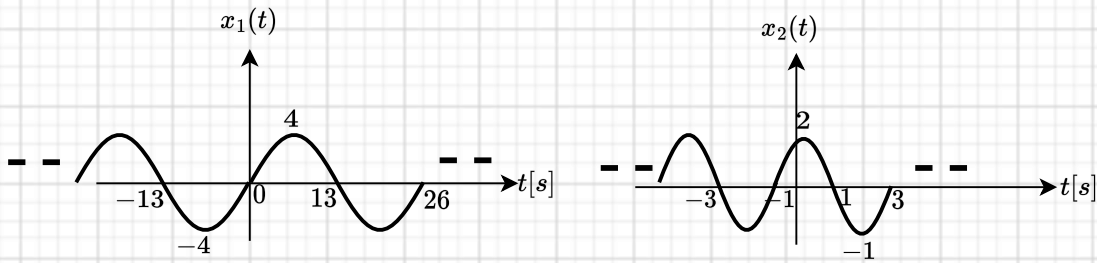


P1: Consider the signals $x_1(t)$ and $x_2(t)$



a) Find the period of $x_1(t) - x_2(t)$

$$T_1 = 26[s] \text{ and } T_2 = 4[s] \Rightarrow \frac{T_1}{T_2} = \frac{26}{4} = \frac{13}{2} \therefore T = 2T_1 = 52[s]$$

b) Find the power of $x_2(t)$

$$x_2(t) = 0.5 - 1.5 \sin\left(\frac{2\pi}{4}t\right) \Rightarrow P = |0.5|^2 + \frac{|-1.5|^2}{2} = \frac{11}{8}$$