

Question 1

$$a) T_0 = \frac{1}{10}$$

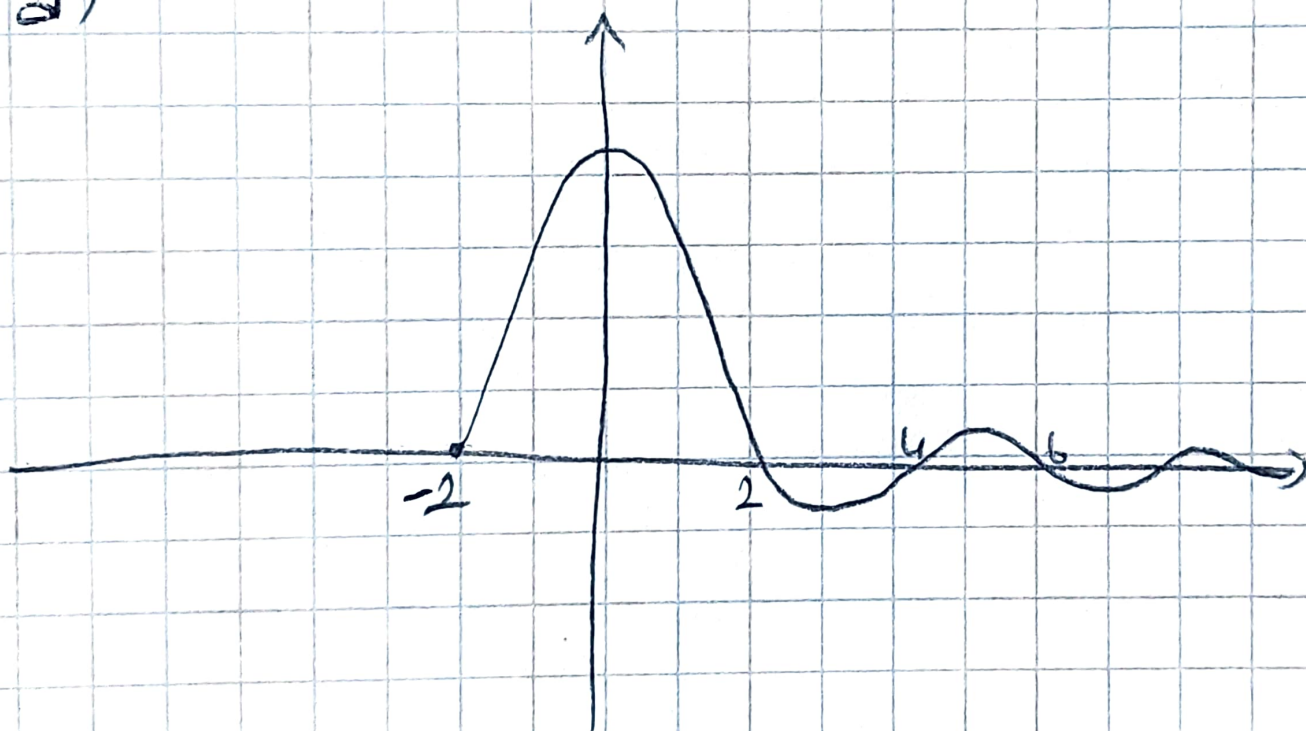
$$\omega_0 = 20\pi$$

$$f_0 = 10 \text{ Hz}$$

$$b) P = T \sum_1^T x^2(t) = 10 \cdot [3^2 \cdot 10] = 900$$

Question 2

a)



Question 2

b)

i) for $t = 0 \rightarrow h(t) = 0$ causal ✓

ii) $\int_{-\infty}^{\infty} h(t) dt < \infty$ ✓ stable

iii) memoryless \rightarrow it does not depend on previous values

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