Matière : **Théorie du Signal**

**Interrogation**

**Enoncé de l’exercice**

1. Ecrire l’expression analytique du signal ci-dessous:

+$ \frac{T}{2}$

t

𝑥(t)

-$ \frac{T}{2}$

0

20

1. Déterminer la densité spectrale de ce signal pour la fréquence nulle.
2. Calculer sa transformée de Fourier X(f).
3. Représenter le spectre du signal.

**Réponse**

1. Expression analytique du signal :

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1. La densité spectrale de ce signal pour la fréquence nulle : ……………………………………………………………………………………………...……………………………………………………………………………………………...……………………………………………………………………………………………...……………………………………………………………………………………………...
2. La transformée de Fourier ……………………………………………………………………………………………...……………………………………………………………………………………………...……………………………………………………………………………………………...……………………………………………………………………………………………...……………………………………………………………………………………………...……………………………………………………………………………………………...……………………………………………………………………………………………...……………………………………………………………………………………………...……………………………………………………………………………………………...……………………………………………………………………………………………...……………………………………………………………………………………………...……………………………
3. **Spectre de x(t)**

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