Let Then $\mathbb{P}\left(f_n X^{\varepsilon} \leq x \right)$ is cts.

So So for $X_n \to X$.

$$\left| \mathbb{P}\left(f_n X^{\varepsilon} \leq x_n \right) - \mathbb{P}\left(f_n X^{\varepsilon} \leq x \right) \right|$$

$$\leq \left| \mathbb{P}\left(f_n X^{\varepsilon} \leq x_n \right) - \mathbb{P}\left(X^{\varepsilon} \leq x_n \right) \right|$$

$$+ \left| \mathbb{P}\left(X^{\varepsilon} \leq x \right) - \mathbb{P}\left(X^{\varepsilon} \leq x \right) \right|$$

$$+ \left| \mathbb{P}\left(X^{\varepsilon} \leq x_n \right) - \mathbb{P}\left(X^{\varepsilon} \leq x \right) \right|$$

Need $X^{\varepsilon} \xrightarrow{d} X$

↳ uniform

$f^{\varepsilon} \Rightarrow f$

then $f^{\varepsilon}(Y) \Rightarrow$ [illegible]

f^{ε} [illegible]