$\mathcal{F}$: ?

$f \in \mathcal{F} \subset C_b(D) \Rightarrow f^+ = f \vee 0 \in \mathcal{F}$

$g \in C_b(\mathbb{R}^k) \Rightarrow g \vee 0 \in C_b(\mathbb{R}^k)$

$(f \vee 0)(t) = (g \vee 0)((z(t_1), \dots, z(t_k)))$

and clearly a vector space so ✓.

$g =$ constant gives constant f^ns.

given ~~t~~ $x \neq y$ need $\boxed{f(x) \neq f(y)}$

ie $z_1 \neq z_2 \in \ell^\infty(T)$

need $f(z_1) \neq f(z_2)$

~~let $g: \mathbb{R} \to \mathbb{R}$, $x \mapsto x$~~

$z_1 \neq z_2 \Rightarrow \exists t$ s.t. $z_1(t) \neq z_2(t)$

let $g = id: \mathbb{R} \to \mathbb{R}$ and let $f(z) = g(z(t))$

then $f(z_1) = z_1(t) \neq z_2(t) = f(z_2)$!