$U = \{(x, y, x+y, x-y, 2x) \in F^5 : x, y \in F\}$

$W = ?$ s.t. $U \oplus W = F^5$

Let $W = \{(0, 0, a, b, c) \in F^5 : a, b, c \in F\}$

Let (p, q, r, s, t) arbitrary element of F^5.

$(p, q, r, s, t) = (p, q, p+q, p-q, 2p) +$

$(0, 0, r-p-q, s-p+q, t-2p) \in U + W$

$\Rightarrow U + W = F^5$ (1)

Let arbitrary $(x, y, x+y, x-y, 2x) \in U$

$(0, 0, a, b, c) \in W$.

$(x, y, x+y, x-y, 2x) = (0, 0, a, b, c) \iff$

$\iff x = 0, y = 0, a = 0, b = 0, c = 0 \Rightarrow U \cap W = \{0\}$ (2)

(1), (2) $\Rightarrow U \oplus W = F^5$