

$$\int_M d\omega = \int_{\partial M} \omega$$



Metric spaces: Which p -norms are induced?

Question #1 For $p \geq 1$, the p -norm on $\mathbb{R}^n$ is

$$\|x\|_p = \left(\sum_{i=1}^n |x_i|^p \right)^{\frac{1}{p}}.$$

Which p -norms are induced by an inner product?

- (A) $p = 1$;
- (B) $p = 2$;
- (C) $p \in \mathbb{N}$;
- (D) p an even integer ≥ 2 ;
- (E) $p \in [1, \infty) \cap \mathbb{Q}$;
- (F) all $p \geq 1$.

