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$W \rightarrow$ vector

$$\boxed{w_1 \ w_2 \ \dots \ w_p}$$

$$|W| = |w_1| + |w_2| + \dots + |w_p| \quad \text{l1 norm}$$

$$\|W\| = \sqrt{w_1^2 + w_2^2 + \dots + w_p^2} \quad \rightarrow \text{l2 norm}$$

$$\|W\|_p = (w_1^p + \dots + w_p^p)^{\frac{1}{p}} \quad \rightarrow \text{lp norm}$$