Question: Compute

Both the cover work $\mathbf{c} \in \mathbb{R}^N$, $N = 100$ and message watermark $\mathbf{w} \in \mathbb{R}^N$ are both normalized, i.e. $\|\mathbf{w}\| = 1, \|\mathbf{c}\| = 1$:

- If the Euclidean distance of them is $\|\mathbf{w} - \mathbf{c}\|^2 = 0.6$, what is the value of their linear correlation $z_{lc}(\mathbf{c}, \mathbf{w})$?

- If the embedding strength α must be less than 2 for fidelity, to achieve desired linear correlation $0.8/N$, what is the requirement for cover work $\mathbf{c}$?