OS (3.25) Sketch each of the following sequences and determine their z-transforms, including the ROC:

(a)

$$\sum_{k=-\infty}^{\infty} \delta[n-4k]$$

(b)

$$\frac{1}{2}\left[e^{j\pi n} + \cos\left(\frac{\pi}{2}n\right) + \sin\left(\frac{\pi}{2} + 2\pi n\right)\right]u[n]$$